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AI 1171
Vol 8

RESULTS

OF

OBSERVATIONS OF THE FIXED STARS

MADE WITH THE

MERIDIAN CIRCLE

AT THE

GOVERNMENT OBSERVATORY MADRAS

IN THE YEARS 1883, 1884, 1885, 1886, AND 1887

UNDER THE DIRECTION OF THE LATE

NORMAN ROBERT POGSON, C.I.E., F.R.A.S.

BY

C. MICHIE SMITH, B.Sc., F.R.A.S., F.R.S.E.

OFFICIATING GOVERNMENT ASTRONOMER AT MADRAS

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INTRODUCTION.

This volume contains the results of the observations made with the Madras Meridian Circle in the years 1883–87 and completes the series of volumes preliminary to the general catalogue. The number of observations made during this period was only 4052, since after 1883 few observations were made except those required to complete the full number for each star in the list. The observers were the same as in the previous three years and no change has been made in the method of reduction.

The reductions have been revised throughout using corrected values for the meridian errors.

With this volume are also issued lists of the corrections that have to to be applied to the results in volume I. to VI. on account of erroneous determinations of meridian error. The most serious errors were due to the use of the stars R. P. L. 14 (Groombridge 195), referred to in last volume, and 24 Cephei (Hev.). The position of this latter star was apparently taken from the *Radcliffe Polar List* and was brought up without the application of any proper motion. No proper motion is ascribed to this star either in the *Greenwich nine-year Catalogue* or in the *Williams College Catalogue*, but Carrington notes it is a proper motion star and there can be little doubt that it has a considerable proper motion. The positions given
5 for 1885 in the *Redhill* and *Radcliffe* catalogues agree fairly well with each other but differ by about 12′ from the place given by Safford's observations in 1883. As this star was in certain years frequently used for the determination of the azimuth it is evident that very serious errors were introduced. These errors ought certainly to have been discovered at an early date, but several circumstances conspired to conceal them. Into these it is not necessay to enter in detail here, but I may point out that when I took up the work in 1891, I had no experience either of the accuracy of the observations or of the steadiness of the instrument, and I underestimated

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both. The corrections that have now been applied show that the older observations especially were very good and that the instrument was remarkably stable. After heavy rain there is usually a considerable and rapid change in the meridian error, but at other times changes are slow and progressive. Heavy rains are, I believe, responsible for a few outstanding cases of uncertain meridian error, for on a small number of days the error has had to be obtained by interpolation between days before and after such rain, but the number of observations affected is not great and the uncertainty lies between moderate limits.

One point that comes out clearly as a result of the investigation of the meridian errors is that for satisfactory work in low latitudes it is necessary to have either a much larger list of polar stars whose positions are accurately determined, or to have a good meridian mark. There are many nights here when good observations can be got of stars at a considerable altitude though it is quite impossible to get any observations of stars below the pole or even within 10° above the pole, and on a good many other nights stars below the pole are so unsteady that they, at times, appear to dance backwards and forwards across the wires. In the great majority of observations of polar stars the transits were taken over only three wires, and in many cases there was a considerable divergence between the times given by the different wires; passing clouds frequently prevented even three consecutive wires from being observed. With highly trained observers it is probable that better results would have been obtained by using the R. A. micrometer and observing a number of transits over the middle wire, but with the observers available for the work here this would have only led to increased errors, for it was found necessary even to give up the use of the P. D. micrometer. So long as the work was simple and purely routine good results were obtained, but the least complexity or interference with the routine was fatal.

It has not been considered necessary to print all the corrections that have been made. In most cases corrections have been entered in the *errata* only when they affected the mean place of the star for any year by more than 0ˢ·02, but all corrections affecting the separate results to the extent of 0ˢ·01 have been entered in the working copies and will be taken into account in forming the catalogue places.

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Instrumental Corrections adopted in 1883.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		s	s	s	s	s	s	
Jan. 1	R	− 4·6	0·0	+ 0·25	+ 0·32	+ 0·03	+ 0·33	35 and 117 R. P. L.
2	,,	− 4·7	0·0	+ 0·27	+ 0·33	+ 0·04	+ 0·27	34, 35 & 100, 118 R. P. L.
3	,,	− 4·8	0·0	+ 0·38	+ 0·35	+ 0·03	+ 0·26	34 and 118 R. P. L.
4	,,	− 6·8	0·0	+ 0·45	+ 0·33	+ 0·02	+ 0·31	37 and 117 R. P. L.
5	,,	− 7·2	0·0	+ 0·45	+ 0·33	+ 0·04	+ 0·33	2 Ursæ Minoris and 117 R. P. L.
8	M	− 5·9	0·0	+ 0·45	+ 0·32	+ 0·03	+ 0·29	37 and 118 R. P. L.
9	,,	− 6·8	0·0	+ 0·45	+ 0·32	+ 0·04	+ 0·30	37 and 118 R. P. L.
11	,,	− 6·7	0·0	+ 0·57	+ 0·32	+ 0·04	+ 0·30	
12	,,	− 7·6	0·0	+ 0·56	+ 0·34	+ 0·04	+ 0·30	37 and 110, 117 R. P. L.
15	,,	− 8·0	0·0	+ 0·33	+ 0·34	+ 0·04	+ 0·29	37, 39, 40, and 114, 117 R. P. L.
16	,,	− 7·7	0·0	+ 0·32	+ 0·32	+ 0·03	+ 0·25	37, 39, 40, and 110, 114, 117 R. P. L.
17	,,	− 7·7	0·0	+ 0·34	+ 0·34	+ 0·04	+ 0·30	37, 39 and 110, 114, 117 R. P. L.
18	,,	− 7·5	0·0	+ 0·40	+ 0·32	+ 0·05	+ 0·30	37, 39, 40, 43, and 116, 120 R. P L.
19	,,	− 7·8	0·0	+ 0·43	+ 0·33	+ 0·04	+ 0·31	37, 41, 43 and 117, 118, 120 R. P. L.
20	,,	− 7·0	0·0	+ 0·45	+ 0·34	+ 0·04	+ 0·32	37, 39, 43 and 116 R. P. L.
22	,,	− 6·8	0·0	+ 0·45	+ 0·35	+ 0·04	+ 0·34	39 and 116 R. P. L.
24	,,	− 7·3	0·0	+ 0·46	+ 0·36	+ 0·04	+ 0·32	43, 117 and 118 R. P. L.
25	,,	− 6·7	0·0	+ 0·52	+ 0·36	+ 0·04	+ 0·34	39, 43 and 117 R. P. L.
26	,,	− 6·9	0·0	+ 0·56	+ 0·34	+ 0·04	+ 0·32	
27	,,	− 6·8	0·0	+ 0·56	+ 0·36	+ 0·04	+ 0·30	39 and 116, 120, 133 R.P.L.
29	,,	− 7·4	0·0	+ 0·64	+ 0·37	+ 0·04	+ 0·32	
30	,,	− 7·5	0·0	+ 0·58	+ 0·37	+ 0·04	+ 0·32	39 and 116, 120, 133 R.P.L.
31	,,	− 7·1	0·0	+ 0·49	+ 0·40	+ 0·03	+ 0·30	39 and 120, R. P. L.
Feb. 1	R	− 10·1	0·0	+ 0·55	+ 0·41	+ 0·04	+ 0·30	118 and 133 R. P. L.
2	,,	− 8·9	0·0	+ 0·55	+ 0·42	+ 0·04	+ 0·30	118 and 133 R. P. L.
3	,,	− 9·0	0·0	+ 0·54	+ 0·42	+ 0·04	+ 0·31	
5	,,	− 9·1	0·0	+ 0·69	+ 0·40	+ 0·04	+ 0·31	
6	M	− 9·3	0·0	+ 0·66	+ 0·38	+ 0·04	+ 0·32	
7	,,	− 7·7	0·0	+ 0·60	+ 0·39	+ 0·04	+ 0·32	118 and 134 R. P. L.
8	R	− 8·0	0·0	+ 0·53	+ 0·40	+ 0·04	+ 0·33	51 Cephei and 120, 133 R. P. L.
9	,,	− 8·2	0·0	+ 0·55	+ 0·39	+ 0·04	+ 0·34	51 Cephei and 120 R. P. L.
10	,,	− 9·5	0·0	+ 0·57	+ 0·42	+ 0·02	+ 0·37	51 Cephei and 120, 134 R. P. L.
12	,,	− 9·9	0·0	+ 0·55	+ 0·38	+ 0·04	+ 0·35	51 Cephei and 120 R. P. L.
13	,,	− 10·0	0·0	+ 0·59	+ 0·39	+ 0·03	+ 0·28	51 Cephei and 134 R. P. L.
14	,,	− 9·4	0·0	+ 0·58	+ 0·41	+ 0·04	+ 0·33	51 Cephei and 120, 134 R. P. L.
15	,,	− 9·1	0·0	+ 0·55	+ 0·38	+ 0·04	+ 0·32	51 Cephei and 134 R. P. L.
16	,,	− 9·5	0·0	+ 0·54	+ 0·39	+ 0·03	+ 0·33	
17	,,	− 8·5	0·0	+ 0·54	+ 0·42	+ 0·04	+ 0·44	
19	,,	− 9·3	0·0	+ 0·61	+ 0·41	+ 0·03	+ 0·35	51 Cephei and 134 R. P. L.
20	,,	− 9·3	0·0	+ 0·63	+ 0·40	+ 0·03	+ 0·37	51 Cephei and 134 R. P. L.
21	,,	− 8·6	0·0	+ 0·61	+ 0·38	+ 0·02	+ 0·36	
22	,,	− 9·0	0·0	+ 0·62	+ 0·39	+ 0·03	+ 0·35	
23	,,	− 8·5	0·0	+ 0·66	+ 0·38	+ 0·04	+ 0·35	
24	,,	− 9·5	0·0	+ 0·67	+ 0·37	+ 0·03	+ 0·34	51 Cephei and 134 R. P. L.
26	,,	− 9·5	0·0	+ 0·60	+ 0·42	+ 0·04	+ 0·31	
27	,,	− 9·3	0·0	+ 0·60	+ 0·43	+ 0·04	+ 0·30	
28	,,	− 9·7	0·0	+ 0·65	+ 0·48	+ 0·04	+ 0·29	82 and 134 R. P. L.
Mar. 1	,,	− 10·8	0·0	+ 0·66	+ 0·46	+ 0·02	+ 0·30	

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Instrumental Corrections adopted in 1883.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining stars.
		″	″	s	s	s	s	
Apl. 3	M	− 7·6	0·0	+ 0·48	+ 0·56	+ 0·04	+ 0·48	82 R. P. L. and Polaris.
4	,,	− 6·2	0·0	+ 0·49	+ 0·58	+ 0·04	+ 0·50	82 R. P. L. and Polaris.
5	,,	− 7·0	0·0	+ 0·56	+ 0·59	+ 0·04	+ 0·51	82 R. P. L. and Polaris.
6	,,	− 5·9	0·0	+ 0·40	+ 0·59	+ 0·03	+ 0·50	72, 82, R. P. L. & Polaris.
7	,,	− 5·8	0·0	+ 0·29	+ 0·60	+ 0·03	+ 0·51	82 R. P. L. and Polaris.
9	,,	− 6·8	0·0	+ 0·42	+ 0·58	+ 0·03	+ 0·52	82 R. P. L. and Polaris.
10	,,	− 6·0	0·0	+ 0·46	+ 0·58	+ 0·03	+ 0·52	
11	,,	− 6·7	0·0	+ 0·49	+ 0·58	+ 0·03	+ 0·52	
12	,,	− 6·8	0·0	+ 0·51	+ 0·58	+ 0·03	+ 0·52	
13	,,	− 5·9	0·0	+ 0·55	+ 0·58	+ 0·03	+ 0·53	
14	,,	− 6·5	0·0	+ 0·49	+ 0·60	+ 0·03	+ 0·53	
16	,,	− 5·7	0·0	+ 0·55	+ 0·58	+ 0·03	+ 0·53	82 R. P. L. and Polaris.
17	,,	− 6·6	0·0	+ 0·59	+ 0·58	+ 0·03	+ 0·52	82 R. P. L. and Polaris.
18	,,	− 5·8	0·0	+ 0·53	+ 0·59	+ 0·03	+ 0·55	
19	,,	− 5·7	0·0	+ 0·53	+ 0·61	+ 0·03	+ 0·57	
20	,,	− 5·7	0·0	+ 0·57	+ 0·62	+ 0·03	+ 0·60	
21	,,	− 4·9	0·0	+ 0·56	+ 0·63	+ 0·04	+ 0·62	82 R. P. L. and Polaris.
23	,,	− 6·8	0·0	+ 0·42	+ 0·60	+ 0·03	+ 0·60	
24	,,	− 6·7	0·0	+ 0·41	+ 0·62	+ 0·03	+ 0·59	
25	,,	− 5·5	0·0	+ 0·49	+ 0·65	+ 0 04	+ 0·59	
26	,,	− 5·6	0·0	+ 0·51	+ 0·65	+ 0·02	+ 0·58	
28	,,	− 4·8	0·0	+ 0·44	+ 0·66	+ 0·03	+ 0·56	
30	,,	− 5·0	0·0	+ 0·37	+ 0·65	+ 0·03	+ 0·55	
May 1	R	− 5·8	− 0·1	+ 0·06	+ 0·70	+ 0·03	+ 0·54	
2	,,	− 5·4	− 0·1	− 0·26	+ 0·66	+ 0·03	+ 0·53	
3	,,	− 5·5	− 0·1	− 0·28	+ 0·65	+ 0·03	+ 0·52	111 R. P. L. and Polaris.
4	,,	− 6·4	− 0·1	− 0·26	+ 0·64	+ 0·03	+ 0·55	
5	,,	− 6·3	− 0·1	− 0·26	+ 0·67	+ 0·03	+ 0·57	110, 116 and 26 R. P. L. Polaris.
7	,,	− 6·6	− 0·1	− 0·26	+ 0·70	+ 0·03	+ 0·58	116, & 37 R. P. L., Polaris.
8	,,	− 6·6	− 0·1	− 0·26	+ 0·66	+ 0·02	+ 0·53	116 R. P. L. and Polaris.
9	,,	− 6·5	− 0·1	− 0·23	+ 0·69	+ 0·03	+ 0·56	116 R. P. L. and Polaris.
10	,,	− 6·6	− 0·1	− 0·22	+ 0·67	+ 0·02	+ 0·56	
11	,,	− 6·6	− 0·1	− 0·21	+ 0·69	+ 0·04	+ 0·57	
12	,,	− 5·9	− 0·1	− 0·16	+ 0·71	+ 0·03	+ 0·57	116 R. P. L., ε Urs. Min. and 37 R. P. L.
14	,,	− 5·6	− 0·1	− 0·21	+ 0·70	+ 0·04	+ 0·58	
15	,,	− 5·4	− 0·1	− 0·19	+ 0·69	+ 0·03	+ 0·59	
18	,,	− 5·0	− 0·1	+ 0·01	+ 0·76	+ 0·04	+ 0·61	117, 120, and 39, 40 R.P.L.
19	,,	− 5·0	− 0·1	− 0·03	+ 0 71	+ 0·02	+ 0·59	117, 120, and 39, 40 R.P.L.
21	,,	− 4·5	− 0·1	− 0·24	+ 0·73	+ 0·03	+ 0·59	
22	,,	− 4·7	− 0·1	− 0·22	+ 0·76	+ 0·02	+ 0·58	
23	,,	− 4·9	− 0·1	− 0·25	+ 0·73	+ 0·02	+ 0·58	117 and 39, 40 R. P. L.
24	,,	− 4·5	− 0·1	− 0·27	+ 0·75	+ 0·02	+ 0·59	
25	,,	− 4·8	− 0·1	− 0·24	+ 0·73	+ 00.2	+ 0·61	
28	,,	− 4 4	− 0·1	− 0·29	+ 0·77	+ 0·03	+ 0·65	120 and 39 R. P. L.
29	,,	− 4·8	− 0·1	− 0·24	+ 0·72	+ 0·01	+ 0·64	
30	,,	− 4·8	− 0·1	− 0·13	+ 0·73	+ 0·02	+ 0·62	
31	,,	− 5·0	− 0·1	+ 0·01	+ 0·70	+ 0·02	+ 0·61	
June 1	,,	− 4·9	+ 0·3	+ 0·04	+ 0·70	+ 0·01	+ 0·60	120 and 41 R. P. L.
2	,,	− 5·7	+ 0·3	− 0·01	+ 0·73	+ 0·01	+ 0·59	
7	,,	− 4·3	+ 0·3	− 0·20	+ 0·72	+ 0·03	+ 0·57	
8	M	− 4·5	+ 0·1	− 0·23	+ 0·74	+ 0·03	+ 0·60	
9	,,	− 5·0	+ 0·1	− 0·27	+ 0·75	+ 0·03	+ 0·62	
11	,,	− 4·0	+ 0·1	− 0·29	+ 0·74	+ 0·03	+ 0·67	
14	,,	− 3·0	+ 0·1	− 0·19	+ 0·74	+ 0·03	+ 0·75	
15	,,	− 4·2	+ 0·1	− 0·14	+ 0·74	+ 0·03	+ 0·77	ε Urs. Min. and 39 R.P.L.

May 1.—Transit clock put forward 1*m*.

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Instrumental Corrections adopted in 1883.

Date.	Observer.	Index.	Run in 5′	Clock Rate.	Inclination.	Collimation.	Meridian	Determining Stars.
		″	″	s	s	s	s	
June 19	M	− 3·7	+ 0·1	− 0·06	+ 0·75	+ 0·03	+ 0·76	
20	,,	− 4·4	+ 0·1	− 0·07	+ 0·68	+ 0·05	+ 0·76	
22	,,	− 3·9	+ 0·1	− 0·11	+ 0·63	+ 0·03	+ 0·76	
26	,,	− 3·3	+ 0·1	− 0·15	+ 0·60	+ 0·03	+ 0·75	
July 3	R	− 4·0	+ 0·1	− 0·27	+ 0·59	+ 0·04	+ 0·74	
4	,,	− 3·1	+ 0·1	− 0·26	+ 0·60	+ 0·02	+ 0·73	
17	,,	− 2·6	+ 0·1	− 0·38	+ 0·55	+ 0·02	+ 0·71	
18	,,	− 1·6	+ 0·1	− 0·49	+ 0·56	+ 0·02	+ 0·71	
20	,,	− 1·9	+ 0·1	− 0·43	+ 0·55	+ 0·03	+ 0·70	
24	,,	− 2·0	+ 0·1	− 0·36	+ 0·54	+ 0·03	+ 0·70	
28	,,	− 0·7	+ 0·1	− 0·36	+ 0·51	+ 0·04	+ 0·69	143, and 53 R. P. L.
30	,,	+ 0·5	+ 0·1	− 0·38	+ 0·48	+ 0·02	+ 0·67	
31	,,	+ 0·5	+ 0·1	− 0·39	+ 0·47	+ 0·03	+ 0·66	
Aug. 2	,,	− 0·4	0·0	− 0·35	+ 0·50	+ 0·02	+ 0·63	
3	,,	− 0·2	0·0	− 0·32	+ 0·49	+ 0·02	+ 0·62	
4	,,	0·0	0·0	− 0·30	+ 0·46	+ 0·02	+ 0 61	133, 138, and 48 R. P. L.
8	,,	− 0·1	0·0	− 0·36	+ 0·49	+ 0·02	+ 0·65	133, 134, and 39, 41 R.P.L.
9	,,	− 3·6	0·0	− 0·37	+ 0·46	+ 0·01	+ 0·67	133, 134, and 39 R. P. L.
10	,,	− 3·7	0·0	− 0·31	+ 0·46	+ 0·03	+ 0·67	133, and 43 R. P. L.
11	,,	− 4·2	0·0	− 0·26	+ 0·46	+ 0·03	+ 0·67	118, 133, 134, & 41, 53 R.P.L.
13	,,	− 4·9	0·0	− 0·21	+ 0·49	+ 0·03	+ 0·68	118, 133, 134, & 41, 48, 53 R. P. L.
14	,,	− 5·0	0·0	− 0·23	+ 0·48	+ 0·03	+ 0·60	δ Urs. Min., 118, and 41, 48 R. P. L
16	,,	− 4·8	0·0	− 0·30	+ 0·49	+ 0·03	+ 0·69	118, 133 and 41, 43 R. P. L.
18	,,	− 4·5	0·0	− 0·30	+ 0·48	+ 0·03	+ 0·67	118 and 41, 43 R. P. L.
25	,,	− 4·9	0·0	− 0·41	+ 0·43	+ 0·03	+ 0·70	120 and 43 R. P. L.
28	,,	− 4·6	0·0	− 0·41	+ 0·44	+ 0·03	+ 0·70	
Sep. 3	M	− 5·4	0·0	− 0·22	+ 0·44	+ 0·02	+ 0·70	
4	,,	− 4·7	0·0	− 0·28	+ 0·39	+ 0·02	+ 0·70	133, 138, 149 & 48 R. P. L.
5	,,	− 4·8	0·0	− 0·36	+ 0·44	+ 0·02	+ 0·71	
10	,,	− 6·4	0·0	− 0·36	+ 0·40	+ 0·02	+ 0·76	
11	,,	− 4·4	0·0	− 0·34	+ 0·41	+ 0·02	+ 0·77	
12	,,	− 4·6	0·0	− 0·31	+ 0·38	+ 0·02	+ 0·78	
13	,,	− 4·5	0·0	− 0·32	+ 0·38	+ 0·02	+ 0·79	
14	,,	− 4·8	0·0	− 0·25	+ 0·37	+ 0·02	+ 0·80	134, 138, 149 and 48, 55, 62 R. P. L.
15	,,	− 4·7	0·0	− 0·23	+ 0·37	+ 0·03	+ 0·82	138 and 62 R. P. L.
17	,,	− 5·3	0·0	− 0·24	+ 0·34	+ 0·02	+ 0·84	
19	,,	− 5·2	0·0	− 0·31	+ 0·34	+ 0·02	+ 0·87	
20	,,	− 3·1	0·0	− 0·34	+ 0·38	+ 0·03	+ 0·88	
21	,,	− 4·8	0·0	− 0·26	+ 0·35	+ 0·03	+ 0·89	
22	,,	− 4·4	0·0	− 0·20	+ 0·34	+ 0·03	+ 0·91	
24	,,	− 3·4	0·0	− 0·30	+ 0·34	+ 0·03	+ 0·93	
25	,,	− 4·1	0·0	− 0·25	+ 0·33	+ 0·03	+ 0·94	
26	,,	− 3·6	0·0	− 0·23	+ 0·32	+ 0·03	+ 0·96	
27	,,	− 3·4	0·0	− 0·30	+ 0·33	+ 0·03	+ 0·97	
28	,,	− 3·1	0·0	− 0·26	+ 0·32	+ 0·03	+ 0·98	134, 138 and 60 R. P. L.
29	,,	− 3·6	0·0	− 0·23	+ 0·31	+ 0·03	+ 0·96	
Oct. 1	R	− 2·9	0·0	− 0·29	+ 0·29	+ 0·04	+ 0·92	
3	,,	− 4·7	0·0	− 0·30	+ 0·28	+ 0·04	+ 0·88	
4	,,	− 4·4	0·0	− 0·32	+ 0·25	+ 0·04	+ 0·86	
5	,,	− 2·9	0·0	− 0·34	+ 0·29	+ 0·05	+ 0·84	
6	,,	− 1·6	0·0	− 0·35	+ 0·23	+ 0·03	+ 0·82	
8	,,	− 0·2	0·0	− 0·05	+ 0·22	+ 0·06	+ 0·77	

Oct. 6.—Line of transit clock broken: clock stopped and restarted.

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Instrumental Corrections adopted in 1883.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Oct. 9	R	− 0·9	0·0	+ 0·23	+ 0·22	+ 0·05	+ 0·75	
10	,,	− 0·1	0·0	+ 0·22	+ 0·25	+ 0·05	+ 0·73	
11	,,	− 0·8	0·0	+ 0·63	+ 0·25	+ 0·06	+ 0·71	
13	,,	+ 0·7	0·0	+ 0·69	+ 0·26	+ 0·04	+ 0·67	
17	,,	− 4·8	0·0	+ 0·89	− 0·04	+ 0·04	+ 0·59	
18	,,	+ 4·8	0·0	+ 0·96	+ 0·03	+ 0·03	+ 0·57	158 and 55 R. P. L.
19	,,	+ 5·7	0·0	+ 0·98	+ 0·10	+ 0·04	+ 0·56	158 and 82 R. P. L.
20	M	+ 5·3	0·0	+ 0·92	+ 0·12	+ 0·03	+ 0·56	
22	R	+ 4·8	0·0	+ 0·65	+ 0·17	+ 0·04	+ 0·56	158 and 55 R. P. L.
23	,,	+ 4·8	0·0	+ 0·56	+ 0·22	+ 0·03	+ 0·58	158 and 82 R. P. L.
24	,,	+ 4·2	0·0	+ 0·58	+ 0·28	+ 0·02	+ 0·59	158 and 53 R. P. L.
25	,,	+ 5·1	0·0	+ 0·61	+ 0·29	+ 0·01	+ 0·60	158 and 53, 82 R. P. L.
Nov. 5	M	+ 6·0	0·0	+ 0·63	+ 0·42	+ 0·03	+ 0·55	
6	R	+ 5·4	0·0	+ 0·62	+ 0·43	+ 0·03	+ 0·54	
7	M	+ 5·6	0·0	+ 0·53	+ 0·43	+ 0·03	+ 0·54	
9	,,	+ 3·8	0·0	+ 0·53	+ 0·40	+ 0·03	+ 0·53	158 and 82, 98 R. P. L.
10	,,	+ 4·9	0·0	+ 0·52	+ 0·38	+ 0·03	+ 0·53	
12	,,	+ 3·8	0·0	+ 0·41	+ 0·37	+ 0·03	+ 0·54	10, 158 and 82, 97, 101 R. P. L.
13	,,	+ 3·3	0·0	+ 0·32	+ 0·37	+ 0·03	+ 0·60	10, 158 and 87, 100 R.P.L
14	,,	+ 2·4	0·0	+ 0·29	+ 0·35	+ 0·03	+ 0·65	158 and 87 R. P. L.
15	,,	+ 1·9	0·0	+ 0·34	+ 0·34	+ 0·02	+ 0·64	
16	,,	+ 2·2	0·0	+ 0·36	+ 0·35	+ 0·03	+ 0·64	
20	,,	+ 1·3	0·0	+ 0·33	+ 0·33	+ 0·03	+ 0·62	
21	,,	+ 2·3	0·0	+ 0·45	+ 0·34	+ 0·03	+ 0·61	α Pegasi and 87 R. P. L.
23	,,	+ 3·1	0·0	+ 0·41	+ 0·34	+ 0·03	+ 0·60	
26	,,	+ 2·1	0·0	+ 0·50	+ 0·32	+ 0·03	+ 0·60	
27	,,	+ 0·6	0·0	+ 0·39	+ 0·32	+ 0·02	+ 0·59	
29	,,	− 1·2	0·0	+ 0·28	+ 0·33	+ 0·03	+ 0·59	
30	,,	+ 0·8	0·0	+ 0·36	+ 0·33	+ 0·03	+ 0·59	
Dec. 4	R	− 0·6	0·0	+ 0·33	+ 0·36	+ 0·04	+ 0·58	
5	,,	− 0·6	0·0	+ 0·30	+ 0·36	+ 0·04	+ 0·57	
6	,,	− 0·6	0·0	+ 0·28	+ 0·36	+ 0·04	+ 0·57	158 and 87, 97 R. P. L.
7	,,	− 2·0	0·0	+ 0·33	+ 0·35	+ 0·04	+ 0·61	
8	,,	− 2·7	0·0	+ 0·35	+ 0·33	+ 0·03	+ 0·60	33 and 97 R. P. L.
11	,,	− 1·4	0·0	+ 0·40	+ 0·35	+ 0·02	+ 0·57	
17	,,	+ 3·3	0·0	+ 0·41	+ 0·72	+ 0·05	+ 0·50	
18	,,	+ 3·9	0·0	+ 0·39	+ 0·74	+ 0·05	+ 0·49	
19	,,	+ 4·4	0·0	+ 0·39	+ 0·75	+ 0·03	+ 0·48	
20	,,	+ 4·1	0·0	+ 0·44	+ 0·78	+ 0·04	+ 0·47	33 and 99, 100 R. P. L.
22	,,	+ 4·0	0·0	+ 0·49	+ 0·59	+ 0·01	+ 0·44	33 and 99 R. P. L.
25	,,	+ 3·4	0·0	+ 0·50	+ 0·57	+ 0·04	+ 0·45	
26	,,	+ 3·1	0·0	+ 0·56	+ 0·52	+ 0·04	+ 0·45	
27	,,	+ 3·3	0·0	+ 0·53	+ 0·49	+ 0·05	+ 0·45	
28	,,	+ 3·2	0·0	+ 0·41	+ 0·45	+ 0·04	+ 0·45	18, 34 and 100, 108 R.P.L.
29	,,	+ 3·2	0·0	+ 0·38	+ 0·43	+ 0·04	+ 0·47	14, 26, 34 and 98 R. P. L.
31	M	+ 1·8	0·0	+ 0·38	+ 0·44	+ 0·03	+ 0·47	

Oct. 11.—New line put in clock.

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Instrumental Corrections adopted in 1884.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Jan. 1	M	+ 1·6	0·0	+ 0·34	+ 0·45	+ 0·04	+ 0·38	β Ceti & 2 Ursæ Minoris.
2	,,	+ 0·8	0·0	+ 0·37	+ 0·47	+ 0·04	+ 0·38	
3	,,	+ 0·9	0·0	+ 0·42	+ 0·46	+ 0·03	+ 0·38	
5	,,	+ 0·7	0·0	+ 0·42	+ 0·47	+ 0·03	+ 0·38	
7	,,	+ 0·7	0·0	+ 0·37	+ 0·50	+ 0·03	+ 0·38	
8	,,	+ 0·2	0·0	+ 0·37	+ 0·47	+ 0·03	+ 0·38	111, 116 R. P .L., & Polaris.
9	,,	+ 0·2	0·0	+ 0·40	+ 0·46	+ 0·03	+ 0·34	111 R. P. L. & Polaris, 35, 40, R. P. L.
10	,,	− 0·2	0·0	+ 0·40	+ 0·44	+ 0·04	+ 0·33	
21	,,	− 1·4	0·0	+ 0·43	+ 0·50	+ 0·03	+ 0·27	δ Urs. Min. & 35, 40, 43 R. P. L., 51 Cephei.
22	,,	− 2·0	0·0	+ 0·33	+ 0·51	+ 0·04	+ 0·36	δ Urs. Min. & 35, 40 R.P.L.
23	,,	− 2·1	0·0	+ 0·33	+ 0·51	+ 0·04	+ 0·36	δ Urs. Min. & 41 R. P. L., 51 Cephei.
24	,,	− 2·0	0·0	+ 0·31	+ 0·50	+ 0·03	+ 0·33	δ Urs. Min. and 51 Cephei.
28	,,	− 1·9	0·0	+ 0·37	+ 0·50	+ 0·03	+ 0·32	δ Urs. Min. & 51 Cephei.
30	,,	− 2·3	0·0	+ 0·45	+ 0·46	+ 0·04	+ 0·29	δ Urs. Min. and 49 R. P. L.
31	,,	− 3·2	0·0	+ 0·47	+ 0·44	+ 0·03	+ 0·30	δ Urs. Min., 24 Urs. Min. & 49 R. P. L.
Feb. 2	R	− 3·3	0·0	+ 0·35	+ 0·45	+ 0·04	+ 0·26	δ Urs. Min., 24 Urs. Min. & 60 R. P. L
5	,,	− 3·5	0·0	+ 0·36	+ 0·43	+ 0·04	+ 0·36	δ Urs. Min. & 60 R. P. L.
7	,,	− 5·3	0·0	+ 0·42	+ 0·41	+ 0·02	+ 0·23	24 Urs. Min. & 70 R.P.L.
9	,,	− 5·3	0·0	+ 0·41	+ 0·43	+ 0·02	+ 0·26	λ Urs. Min. & 70 R.P.L.
13	,,	− 5·9	0·0	+ 0·42	+ 0·49	+ 0·04	+ 0·29	λ Urs. Min. & 70 R. P. L.
16	,,	− 5·9	0·0	+ 0·39	+ 0·59	+ 0·03	+ 0·28	λ Urs. Min. & 70 R. P. L.
19	,,	− 6·9	0·0	+ 0·32	+ 0·56	+ 0·04	+ 0·24	
22	,,	− 7·0	0·0	+ 0·33	+ 0·52	+ 0·02	+ 0·21	
26	,,	− 7·0	0·0	+ 0·37	+ 0·56	+ 0·04	+ 0·17	ζ Argus & 70 R. P. L.
29	,,	− 7·7	0·0	+ 0·43	+ 0·50	+ 0·02	+ 0·15	
Apl. 16	,,	− 7·0	0·0	+ 0·40	+ 0·75	+ 0·04	+ 0·34	153 and 70, 89 R. P. L.
17	,,	− 7·6	0·0	+ 0·34	+ 0·76	+ 0·04	+ 0·24	14 & 72, 89, 92, 99 R. P. L.
18	,,	− 7·4	0·0	+ 0·40	+ 0·75	+ 0·03	+ 0·24	155 & 72, 89, 99 R.P.L.
19	,,	− 7·4	0·0	+ 0·38	+ 0·76	+ 0·04	+ 0·27	155 & 89 R. P. L.
21	,,	− 8·4	0·0	+ 0·39	+ 0·78	+ 0·03	+ 0·23	155 & 72 R. P. L.
22	,,	− 7·5	0·0	+ 0·43	+ 0·73	+ 0·02	+ 0·19	Polaris & 72, 93 R. P. L.
23	,,	− 8·5	0·0	+ 0·43	+ 0·72	+ 0·02	+ 0·22	
24	,,	− 8·9	0·0	+ 0·49	+ 0·72	+ 0·02	+ 0·24	10 R. P. L., Polaris & 93 R. P. L.
25	,,	− 8·4	0·0	+ 0·50	+ 0·74	+ 0·04	+ 0·24	Polaris & 97 R. P. L.
26	,,	− 8·5	0·0	+ 0·45	+ 0·73	+ 0·01	+ 0·23	
28	,,	− 7·1	0·0	+ 0·51	+ 0·75	+ 0·04	+ 0·20	158 & 103 R. P. L.
29	,,	− 7·8	0·0	+ 0·51	+ 0·74	+ 0·02	+ 0·20	
30	,,	− 7·5	0·0	+ 0·54	+ 0·73	+ 0·03	+ 0·21	
May 1	M	− 7·0	0·0	+ 0·58	+ 0·75	+ 0·04	+ 0·21	
2	,,	− 6·3	0·0	+ 0·56	+ 0·75	+ 0·03	+ 0·21	
June 20	M	− 7·0	0·0	+ 0·63	+ 0·79	+ 0·03	+ 0·37	34 & 115 R. P. L.
21	,,	− 5·7	0·0	+ 0·61	+ 0·78	+ 0·04	+ 0·46	33, 43 & 108, 120 R. P. L.
23	R	− 5·6	0·0	+ 0·57	+ 0·77	+ 0·04	+ 0·42	
24	,,	− 5·7	0·0	+ 0·46	+ 0·79	+ 0·03	+ 0·41	34 & 111, 116 R. P. L.
25	,,	− 5·2	0·0	+ 0·42	+ 0·82	+ 0·03	+ 0·42	
26	,,	− 6·9	0·0	+ 0·54	+ 0·79	+ 0·02	+ 0·44	
28	,,	− 5·6	0·0	+ 0·55	+ 0·80	+ 0·03	+ 0·35	34 & 108, 111 R. P. L.
July 14	M	− 4·9	0·0	− 0·34	+ 0·78	+ 0·03	+ 0·48	37 & 111, 114, 118 R.P.L.
17	,,	− 5·1	0·0	− 0·17	+ 0·79	+ 0·03	+ 0·42	34 & 111, 114 R. P. L.
18	,,	− 5·5	0·0	− 0·17	+ 0·81	+ 0·04	+ 0·52	43 & 111, 120 R. P. L.

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Instrumental Corrections adopted in 1884.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
July 19	,,	− 5·1	0·0	− 0·21	+ 0·80	+ 0·03	+ 0·52	
22	,,	− 5·2	0·0	− 0·20	+ 0·80	+ 0·04	+ 0·53	
23	,,	− 5·5	0·0	− 0·17	+ 0·80	+ 0·03	+ 0·54	
24	,,	− 5·3	0·0	− 0·15	+ 0·78	+ 0·03	+ 0·54	
25	,,	− 4·9	0·0	− 0·09	+ 0·77	+ 0·04	+ 0·54	
26	,,	− 6·1	0·0	− 0·06	+ 0·77	+ 0·04	+ 0·55	
Aug. 2	R	− 4·6	0·0	− 0·08	+ 0·72	+ 0·04	+ 0·57	
4	,,	− 5·0	0·0	− 0·11	+ 0·74	+ 0·04	+ 0·58	
5	,,	− 4·4	0·0	− 0·15	+ 0·75	+ 0·04	+ 0·58	λ Sagittarii & 24 Urs. Min
7	,,	− 4·9	0·0	− 0·21	+ 0·75	+ 0·02	+ 0·65	51 Cephei & 143 R. P. L.
8	,,	− 4·6	0·0	− 0·22	+ 0·76	+ 0·03	+ 0·66	
11	,,	− 4·6	0·0	− 0·18	+ 0·75	+ 0·02	+ 0·65	
12	,,	− 5·0	0·0	− 0·20	+ 0·75	+ 0·03	+ 0·68	
13	,,	− 4·2	0·0	− 0·13	+ 0·75	+ 0·04	+ 0·69	51 Cephei 131 R. P. L.
14	,,	− 4·7	0·0	− 0·17	+ 0·72	+ 0·02	+ 0·68	
15	,,	− 5·1	0·0	− 0·10	+ 0·71	+ 0·04	+ 0·67	
16	,,	− 3·9	0·0	0·00	+ 0·73	+ 0·04	+ 0·67	
18	,,	− 4·5	0·0	− 0·22	+ 0·73	+ 0·03	+ 0·65	49 R.P.L. & 24 Urs. Min.
19	,,	− 4·6	0·0	− 0·25	+ 0·75	+ 0·02	+ 0·61	51 Cephei & 24 Urs. Min.
20	,,	− 4·5	0·0	− 0·33	+ 0·74	+ 0·03	+ 0·68	51 Cephei & 24 Urs Min., 143 R. P. L.
21	,,	− 4·4	0·0	− 0·30	+ 0·74	+ 0·03	+ 0·69	θ Capricorni & 24 Urs. Min.
23	,,	− 4·3	0·0	− 0·30	+ 0·75	+ 0·04	+ 0·68	
25	,,	− 3·0	0·0	− 0·29	+ 0·75	+ 0·03	+ 0·69	
26	,,	− 4·3	0·0	− 0·29	+ 0·73	+ 0·03	+ 0·70	
28	,,	− 3·1	0·0	− 0·34	+ 0·75	+ 0·02	+ 0·71	
Sep. 1	,,	− 4·7	− 0·1	− 0·35	+ 0·73	+ 0·04	+ 0·72	
8	,,	− 4·1	− 0·1	− 0·34	+ 0·68	+ 0·03	+ 0·76	
10	,,	− 4·1	− 0·1	− 0·32	+ 0·66	+ 0·03	+ 0·78	48, 53, 60 & 131, 143 R.P.L.
11	,,	− 3·9	− 0·1	− 0·30	+ 0·64	+ 0·03	+ 0·76	48 & 24 Urs. Min., 131 R. P. L.
13	,,	− 3·4	− 0·1	− 0·34	+ 0·63	+ 0·03	+ 0·70	45 R. P. L. & 24 Urs.Min., 131 R. P. L.
16	M	− 4·4	− 0·1	− 0·37	+ 0·60	+ 0·03	+ 0·65	45 R. P. L. & 24 Urs.Min., 131 R. P. L.
24	M	− 1·0	− 0·1	− 0·39	+ 0·55	+ 0·03	+ 0·63	48, 53, 60, 70, 72 R. P.L. & 24 Ursæ Minoris, 131 R. P. L.
25	,,	− 1·1	− 0·1	− 0·34	+ 0·55	+ 0·03	+ 0·69	β Aquarii & λ Urs. Minoris.
26	,,	− 1·3	− 0·1	− 0·36	+ 0·55	+ 0·03	+ 0·67	
Oct. 1	,,	− 1·3	− 0·1	− 0·41	+ 0·53	+ 0·04	+ 0·58	62, 69, 72; 79 & 150 R.P.L.
2	,,	− 0·9	− 0·1	− 0·38	+ 0·52	+ 0·03	+ 0·55	55, 79, & 151 R. P. L.
3	,,	− 1·2	− 0·1	− 0·37	+ 0·52	+ 0·04	+ 0·58	45, 55, 60 & 62 R. P. L., 24 Cephei 151 R. P. L.
4	,,	− 1·7	− 0·1	− 0·34	+ 0·52	+ 0·03	+ 0·57	48, 62, 79 & 153 R. P. L.
6	,,	− 1·4	− 0·1	− 0·54	+ 0·51	+ 0·03	+ 0·59	45, 69, 79 & 153 R. P. L.
7	,,	− 1·2	− 0·1	− 0·54	+ 0·52	+ 0·04	+ 0·63	45 & 153 R.P.L.
8	,,	− 2·5	− 0·1	− 0·46	+ 0·50	+ 0·03	+ 0·57	45, 62, 79 & 153 R. P. L.
9	,,	− 2·3	− 0·1	− 0·45	+ 0·52	+ 0·04	+ 0·60	45, 79 & 153 R. P. L.
10	,,	− 2·0	− 0·1	− 0·43	+ 0·50	+ 0·03	+ 0·59	45, 79 & 153 R. P. L.
11	,,	− 2·4	− 0·1	− 0·43	+ 0·49	+ 0·03	+ 0·58	49 R. P. L. & λ Urs. Min.
13	,,	− 2·1	− 0·1	− 0·47	+ 0·49	+ 0 04	+ 0·62	49 R. P. L. & λ Urs. Min.
21	,,	+ 5·7	− 0·1	− 0·52	+ 0·15	+ 0·03	+ 0·50	
22	,,	+ 6·4	− 0·1	− 0·51	+ 0·18	+ 0·03	+ 0·48	ε Aquarii & 153 R. P. L.
27	,,	+ 7·8	− 0·1	− 0·69	+ 0·26	+ 0·03	+ 0·50	

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Instrumental Corrections adopted in 1884.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
28	„	+ 7·3	− 0·1	− 0·72	+ 0·27	+ 0·04	+ 0·50	87, 92, 97 & 10 R.P.L.
Nov. 12	R	+ 6·2	+ 0·1	− 0·89	+ 1·01	+ 0·03	+ 0·53	
14	„	+ 7·6	+ 0·1	− 1·01	+ 1·10	+ 0·03	+ 0·54	
15	„	+ 7·6	+ 0·1	− 0·96	+ 1·03	+ 0·02	+ 0·54	
17	„	+ 7·7	+ 0·1	− 0·94	+ 0·97	+ 0·04	+ 0·55	
18	„	+ 8·3	+ 0·1	− 1·03	+ 0·98	+ 0·03	+ 0·55	93, 10, & 18 R. P. L.
22	„	+ 7·6	+ 0·1	− 0·98	+ 0·94	+ 0·03	+ 0·55	
26	„	+ 8·4	+ 0·1	− 0·92	+ 0·93	+ 0·02	+ 0·55	87,92 & 10 R.P.L., Polaris.
29	„	+ 9·1	+ 0·1	− 0·93	+ 0·95	+ 0·03	+ 0·52	87, 103 R. P. L. & 2993 Radcliffe & 10 R. P. L.
Dec. 1	„	+ 8·3	0·0	− 1·04	+ 0·94	+ 0·05	+ 0·57	87, 103 R. P. L. & 2 Ursæ Minoris.
3	M	+ 8·4	0·0	− 1·07	+ 0·91	+ 0·04	+ 0·50	100, 103 & 10 R. P. L.
4	„	+ 8·5	0·0	− 1·04	+ 0·89	+ 0·04	+ 0·49	100, 103 & 10 R. P. L.
11	„	+ 6·8	0·0	− 0·99	+ 0·78	+ 0·04	+ 0·43	100, 103 & 10 R. P. L.
12	„	+ 6·3	0·0	− 1·10	+ 0·76	+ 0·04	+ 0·46	100, & 10 R. P. L.
23	R	+ 12·6	0·0	− 1·03	+ 1·17	+ 0·03	+ 0·47	100, & 10 R. P. L.
24	„	+ 13·9	0·0	− 1·02	+ 1·32	+ 0·03	+ 0·52	
26	„	+ 13·3	0·0	− 0·97	+ 1·32	+ 0·02	+ 0·54	101 & 10 R. P. L.
27	„	+ 13·6	0·0	− 0·99	+ 1·32	+ 0·02	+ 0·55	101 & 10 R. P. L.
29	M	+ 13·8	0·0	− 1·00	+ 1·35	+ 0·03	+ 0·45	103 & 10 R. P. L.
30	„	+ 12·0	0·0	− 0·89	+ 1·34	+ 0·04	+ 0·56	
31	„	+ 11·8	0·0	− 0·80	+ 1·33	+ 0·04	+ 0·45	103 & 10 R. P. L.

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Instrumental Corrections adopted in 1885.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Jan. 1	M	+ 10·6	− 0·5	+ 0·22	+ 1·32	+ 0·03	+ 0·42	10 and 110 R. P. L.
2	,,	+ 12·0	− 0·5	+ 0·24	+ 1·31	+ 0·03	+ 0·41	
5	R	+ 11·0	− 0·5	+ 0·20	+ 1·16	+ 0·02	+ 0·39	
8	,,	+ 9·9	− 0·5	+ 0·01	+ 1·06	+ 0·03	+ 0·36	37 and 110 R. P. L.
10	,,	+ 9·1	− 0·5	− 0·02	+ 1·02	+ 0·03	+ 0·35	
14	,,	+ 8·4	− 0·5	+ 0·09	+ 0·90	+ 0·04	+ 0·34	37 and 110 R. P. L.
17	,,	+ 6·8	− 0·5	+ 0·12	+ 0·87	+ 0·05	+ 0·35	37 and 110 R. P. L.
20	,,	+ 6·0	− 0·5	+ 0·15	+ 0·84	+ 0·02	+ 0·30	37 and 110 R. P. L.
23	,,	+ 5·8	− 0·5	+ 0·13	+ 0·81	+ 0·03	+ 0·26	37 R. P. L. and μ Eridani.
26	,,	+ 4·2	− 0·5	+ 0·14	+ 0·74	+ 0·03	+ 0·32	37 R. P. L. and δ Urs. Min.
29	,,	+ 3·7	− 0·5	+ 0·17	+ 0·78	+ 0·04	+ 0·32	37 R. P. L. and δ Urs. Min.
31	,,	+ 4·2	− 0·5	+ 0·15	+ 0·77	+ 0·02	+ 0·30	
Feb. 3	M	+ 1·3	+ 0·3	+ 0·11	+ 0·82	+ 0·03	+ 0·26	
6	,,	+ 0·5	+ 0·3	+ 0·15	+ 0·80	+ 0·03	+ 0·23	37 R. P. L. and δ Urs. Min.
9	,,	− 0·8	+ 0·3	+ 0·12	+ 0·80	+ 0·03	+ 0·20	
10	,,	− 1·3	+ 0·3	+ 0·14	+ 0·78	+ 0·02	+ 0·19	37 R. P. L. and δ Urs. Min.
11	,,	− 1·2	+ 0·3	+ 0·20	+ 0·80	+ 0·03	+ 0·20	
12	,,	− 0·6	+ 0·3	+ 0·12	+ 0·81	+ 0·02	+ 0·22	
13	,,	− 0·9	+ 0·3	+ 0·12	+ 0·82	+ 0·03	+ 0·23	
14	,,	− 1·9	+ 0·3	+ 0·18	+ 0·83	+ 0·02	+ 0·24	37 R. P. L. and δ Urs. Min.
16	,,	− 2·0	+ 0·3	+ 0·17	+ 0·80	+ 0·02	+ 0·23	
17	,,	− 1·8	+ 0·3	+ 0·19	+ 0·81	+ 0·02	+ 0·22	
18	R	− 1·4	+ 0·3	+ 0·07	+ 0·80	+ 0·03	+ 0·21	
19	M	− 2·1	+ 0·3	+ 0·07	+ 0·82	+ 0·02	+ 0·20	
20	,,	− 1·9	+ 0·3	+ 0·18	+ 0·86	+ 0·02	+ 0·20	37 R. P. L. and δ Urs. Min.
23	,,	− 2·9	+ 0·3	+ 0·16	+ 0·87	+ 0·03	+ 0·18	
26	,,	− 3·0	+ 0·3	+ 0·14	+ 0·84	+ 0·02	+ 0·17	51 Cephei & δ Urs. Min.
28	,,	− 3·0	+ 0·3	+ 0·19	+ 0·83	+ 0·02	+ 0·19	
Mar. 3	R	− 3·2	+ 0·1	+ 0·18	+ 0·81	+ 0·04	+ 0·21	51 Cephei & δ Urs. Min.
6	,,	− 2·0	+ 0·1	+ 0·13	+ 0·89	+ 0·04	+ 0·24	51 Cephei & δ Urs. Min.
9	,,	− 3·3	+ 0·1	+ 0·14	+ 0·83	+ 0·03	+ 0·22	
12	,,	− 3·6	+ 0·1	+ 0·15	+ 0·85	+ 0·03	+ 0·20	51 Cephei & δ Urs. Min.
14	,,	− 4·0	+ 0·1	+ 0·16	+ 0·84	+ 0·03	+ 0·20	
17	M	− 4·6	+ 0·1	+ 0·12	+ 0·88	+ 0·03	+ 0·19	
20	,,	− 4·3	+ 0·1	+ 0·12	+ 0·89	+ 0·03	+ 0·19	51 Cephei & λ Urs. Min.
23	R	− 3·5	+ 0·1	+ 0·17	+ 0·85	+ 0·03	+ 0·19	51 Cephei & λ Urs. Min.
26	,,	− 3·3	+ 0·1	+ 0·20	+ 0·87	+ 0·02	+ 0·18	51 Cephei & λ Urs. Min.
28	,,	− 3·3	+ 0·1	+ 0·18	+ 0·86	+ 0·02	+ 0·19	51 Cephei & λ Urs. Min.
30	,,	− 3·8	+ 0·1	+ 0·13	+ 0·88	+ 0·03	+ 0·21	51 Cephei & λ Urs. Min.
Apl. 1	,,	− 3·4	+ 0·3	+ 0·10	+ 0·88	+ 0·03	+ 0·20	51 Cephei & λ Urs. Min.
3	,,	− 3·1	+ 0·3	+ 0·06	+ 0·88	+ 0·02	+ 0·19	
8	M	− 3·7	+ 0·3	+ 0·07	+ 0·91	+ 0·02	+ 0·17	
11	,,	− 3·6	+ 0·3	+ 0·08	+ 0·96	+ 0·03	+ 0·16	
14	,,	− 3·4	+ 0·3	+ 0·08	+ 0·97	+ 0·02	+ 0·15	72 and 155 R. P. L.
17	,,	− 3·4	+ 0·3	+ 0·08	+ 0·96	+ 0·02	+ 0·12	72 and 155 R. P. L.
Apl. 21	M	− 3·8	+ 0·3	+ 0·09	+ 0·96	+ 0·02	+ 0·14	72 and 155 R. P. L.
24	,,	− 3·5	+ 0·3	+ 0·10	+ 0·96	+ 0·03	+ 0·13	72 and 155 R. P. L.
28	,,	− 3·3	+ 0·3	+ 0·13	+ 0·97	+ 0·02	+ 0·11	72 and 155 R. P. L.
May 1	R	− 3·1	− 0·1	+ 0·11	+ 0·98	+ 0·03	+ 0·13	72 and 155 R. P. L.
5	,,	− 3·5	− 0·1	+ 0·08	+ 1·02	+ 0·03	+ 0·16	
7	,,	− 3·0	− 0·1	+ 0·08	+ 1·03	+ 0·02	+ 0·18	
9	,,	− 3·2	− 0·1	+ 0·10	+ 1·03	+ 0·03	+ 0·19	72 and 155 R. P. L.
11	,,	− 3·5	− 0·1	+ 0·08	+ 1·05	+ 0·02	+ 0·22	
13	,,	− 2·9	− 0·1	+ 0·07	+ 1·12	+ 0·04	+ 0·25	72 and 155 R. P. L.

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Instrumental Corrections adopted in 1885.

Date.	Observer.	Index.	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars
		″	″	s	s	s	s	
May 15	R	− 2·8	− 0·1	+ 0·07	+ 1·11	+ 0·03	+ 0·25	
18	,,	− 3·0	− 0·1	+ 0·04	+ 1·13	+ 0·03	+ 0·25	
20	,,	− 3·1	− 0·1	+ 0·02	+ 1·12	+ 0·02	+ 0·25	
22	,,	− 2·8	− 0·1	+ 0·03	+ 1·12	+ 0·03	+ 0·25	92 and 155 R. P. L.
25	,,	− 3·4	− 0·1	+ 0·04	+ 1·10	+ 0·03	+ 0·24	92 and 155 R. P. L.
28	,,	− 2·4	− 0·1	0·00	+ 1·12	+ 0·03	+ 0·23	
30	,,	− 3·2	− 0·1	− 0·01	+ 1·11	+ 0·01	+ 0·23	
June 2	M	− 1·3	+ 0·2	− 0·05	+ 1·16	+ 0·03	+ 0·22	
5	,,	− 2·7	+ 0·2	− 0·08	+ 1·11	+ 0·02	+ 0·21	
Aug. 5	R	− 2·8	0·0	+ 0·13	+ 1·11	+ 0·04	+ 0·46	
7	,,	− 3·2	0·0	+ 0·12	+ 1·17	+ 0·02	+ 0·47	51 Cephei & 72 Ophiuchi.
15	,,	− 2·2	0·0	+ 0·11	+ 1·15	+ 0·06	+ 0·50	
17	,,	− 3·5	0·0	+ 0·04	+ 1·11	+ 0·02	+ 0·51	51 Cephei & δ Urs. Min.
20	,,	− 2·4	0·0	− 0·02	+ 1·08	+ 0·02	+ 0·51	
Sep. 7	,,	− 2·1	+ 0·2	+ 0·18	+ 1·04	+ 0·03	+ 0·53	51 Cephei & δ Urs. Min.
12	,,	− 2·8	+ 0·2	+ 0·15	+ 1·06	+ 0·02	+ 0·54	
15	,,	− 2·4	+ 0·2	+ 0·07	+ 1·00	+ 0·02	+ 0·54	
18	,,	− 2·1	+ 0·2	− 0·01	+ 0·95	+ 0·03	+ 0·55	
25	,,	+ 0·5	+ 0·2	− 0·11	+ 0·92	+ 0·02	+ 0·55	72 R. P. L. & λ Urs. Min.
29	,,	− 0·3	+ 0·2	− 0·21	+ 0·95	+ 0·02	+ 0·57	
Oct. 1	M	+ 0·9	0·0	− 0·22	+ 0·98	+ 0·03	+ 0·57	
3	,,	+ 1·6	0·0	− 0·17	+ 0·95	+ 0·03	+ 0·57	
5	,,	+ 0·7	0·0	− 0·13	+ 0·94	+ 0·03	+ 0·58	
7	,,	+ 0·3	0·0	− 0·13	+ 0·93	+ 0·03	+ 0·58	72 and 155 R. P. L.
9	,,	+ 2·6	0·0	− 0·37	+ 0·90	+ 0·02	+ 0·55	
14	,,	+ 2·9	0·0	− 0·48	+ 0·86	+ 0·03	+ 0·47	72 R. P. L. and λ Aquarii.
16	,,	+ 3·1	0·0	− 0·39	+ 0·86	+ 0·03	+ 0·55	
19	,,	+ 1·9	0·0	− 0·37	+ 0·89	+ 0·03	+ 0·55	
21	,,	+ 2·3	0·0	− 0·37	+ 0·88	+ 0·03	+ 0·55	
23	,,	+ 2·8	0·0	− 0·35	+ 0·89	+ 0·03	+ 0·55	
Dec. 28	R	+ 7·0	0·0	− 1·33	+ 0·89	+ 0·03	+ 0·52	

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Instrumental Corrections adopted in 1886.

Date.	Observer.	Index	Run in 5′.	Clock Rate.	Inclination.	Collimation.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Jan. 1	M	+ 5·5	0·0	− 1·30	+ 0·85	+ 0·03	+ 0·49	37 and 110 R. P. L.
7	R	+ 4·6	0·0	− 1·29	+ 0·92	+ 0·08	+ 0·43	
15	,,	+ 3·6	0·0	− 1·43	+ 0·84	+ 0·04	+ 0·36	51 Cephei & δ Urs. Min.
19	,,	+ 1·9	0·0	− 1·33	+ 0·84	+ 0·04	+ 0·36	
24	,,	− 0·2	0·0	− 0·20	− 0·03	+ 0·06	+ 0·35	51 Cephei & δ Urs. Min.
26	,,	− 0·2	0·0	+ 0·19	− 0·04	+ 0·28	+ 0·25	
27	,,	− 0·2	0·0	+ 0·28	− 0·05	+ 0·40	+ 0·39	
29	,,	− 0·2	0·0	+ 0·68	− 0·06	+ 0·62	+ 0·51	37 and 40 R. P. L. 51 Cephei & δ Urs. Min.
30	,,	− 0·8	0·0	+ 0·65	+ 0·07	+ 0·02	+ 0·49	37 and 40 R. P. L. 51 Cephei & δ Urs. Min.
Feb. 1	,,	− 2·4	− 0·3	+ 0·65	+ 0·11	+ 0·03	+ 0·64	37 and 40 R. P. L., λ Ursæ Minoris.
3	,,	+ 0·1	− 0·3	+ 0·70	+ 0·09	+ 0·04	+ 0·69	
6	,,	− 2·2	− 0·3	+ 0·70	+ 0·07	+ 0·08	+ 0·76	
13	M	− 7·1	− 0·3	+ 0·85	+ 0·05	+ 0·10	+ 0·53	51 Cephei & λ Urs. Min.
15	,,	− 7·7	− 0·3	+ 0·76	+ 0·02	+ 0·07	+ 0·52	51 Cephei & λ Urs. Min.
17	,,	− 7·3	− 0·3	+ 0·76	+ 0·03	+ 0·07	+ 0·54	51 Cephei & λ Urs. Min.
20	,,	− 7·5	− 0·3	+ 0·84	+ 0·03	+ 0·06	+ 0·53	
22	,,	− 7·5	− 0·3	+ 0·89	+ 0·05	+ 0·04	+ 0·49	51 Cephei & λ Urs. Min.
25	,,	− 7·4	− 0·3	+ 0·93	+ 0·06	+ 0·05	+ 0·49	
Apl. 2	R	− 7·5	0·0	+ 0·91	+ 0·28	+ 0·07	+ 0·53	72 and 155 R. P. L.
5	,,	− 6·4	0·0	+ 0·84	+ 0·30	+ 0·06	+ 0·47	
7	,,	− 6·6	0·0	+ 0·91	+ 0·26	+ 0·07	+ 0·43	
9	,,	− 7·4	0·0	+ 0·90	+ 0·22	+ 0·05	+ 0·39	72 and 155 R. P. L.
12	,,	− 7·0	0·0	+ 0·85	+ 0·23	+ 0·06	+ 0·40	
14	,,	− 6·8	0·0	+ 0·86	+ 0·23	+ 0·06	+ 0·41	
16	,,	− 7·1	0·0	+ 0·81	+ 0·24	+ 0·05	+ 0·41	
19	,,	− 7·2	0·0	+ 0·83	+ 0·28	+ 0·06	+ 0·42	92 and 155 R. P. L.
21	,,	− 6·2	0·0	+ 0·81	+ 0·31	+ 0·13	+ 0·42	
24	,,	− 6·5	0·0	+ 0·81	+ 0·33	+ 0·13	+ 0·42	
27	,,	− 6·6	0·0	+ 0·91	+ 0·33	+ 0·10	+ 0·41	
29	,,	− 6·2	0·0	+ 0·95	+ 0·27	+ 0·08	+ 0·41	92 and 155 R. P. L.
May 1	,,	− 6·9	0·0	+ 0·92	+ 0·26	+ 0·07	+ 0·42	
4	,,	− 7·2	0·0	+ 0·91	+ 0·28	+ 0·07	+ 0·44	
6	,,	− 6·1	0·0	+ 0·91	+ 0·29	+ 0·07	+ 0·45	
8	,,	− 6·8	0·0	+ 0·92	+ 0·34	+ 0·05	+ 0·46	
10	,,	− 5·9	0·0	+ 1·00	+ 0·36	+ 0·04	+ 0·47	92 and 155 R. P. L.
June 7	M	− 0·2	− 0·1	+ 0·75	+ 0·23	+ 0·04	+ 0·49	
11	,,	+ 0·8	− 0·1	+ 0·72	+ 0·16	+ 0·05	+ 0·49	Polaris and 92 R. P. L.
18	,,	+ 2·0	− 0·1	+ 0·75	+ 0·18	+ 0·07	+ 0·47	
22	,,	+ 0·3	− 0·1	+ 0·88	+ 0·14	+ 0·07	+ 0·43	Polaris and ρ Bootis.
25	,,	+ 1·3	− 0·1	+ 0·92	+ 0·12	+ 0·07	+ 0·43	
Aug. 4	R	+ 6·6	0·0	+ 0·71	+ 0·06	+ 0·07	+ 0·50	51 Cephei & δ Urs. Min.
Sep. 1	M	− 0·1	0·0	+ 0·47	+ 0·13	+ 0·12	+ 0·46	
4	,,	− 1·0	0·0	+ 0·52	+ 0·15	+ 0·11	+ 0·44	51 Cephei & λ Urs. Min.
11	,,	− 2·2	0·0	+ 0·62	+ 0·12	+ 0·11	+ 0·49	
15	,,	− 2·3	0·0	+ 0·59	+ 0·16	+ 0·12	+ 0·51	
18	,,	− 2·3	0·0	+ 0·64	+ 0·18	+ 0·12	+ 0·52	
22	,,	− 3·0	0·0	+ 0·71	+ 0·18	+ 0·11	+ 0·54	
25	,,	− 1·9	0·0	+ 0·76	+ 0·17	+ 0·11	+ 0·56	51 Cephei & λ Urs Min.
Dec. 11	R	+ 4·4	0·0	+ 0·15	− 0·06	+ 0·06	+ 0·41	110 R. P. L. and Polaris.
24	,,	− 0·3	0·0	+ 0·12	+ 0·01	+ 0·07	+ 0·56	110 R. P. L. and Polaris.
28	M	− 2·4	0·0	+ 0·23	+ 0·03	+ 0·07	+ 0·44	37 and 110 R. P. L.

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Instrumental Corrections adopted in 1887.

Date.	Obser-ver.	Index.	Run in 5′.	Clock Rate.	Inclina-tion.	Collima-tion.	Meridian.	Determining Stars.
		″	″	s	s	s	s	
Jan. 7	M	− 4·9	0·0	+ 0·15	+ 0·06	+ 0·09	+ 0·38	110 and 37 R. P. L.
11	,,	− 5·4	0·0	+ 0·20	+ 0·07	+ 0·11	+ 0·39	
14	R	− 6·6	0·0	+ 0·22	+ 0·10	+ 0·11	+ 0·40	
18	M	− 6·8	0·0	+ 0·24	+ 0·10	+ 0·12	+ 0·41	
21	,,	− 7·0	0·0	+ 0·26	+ 0·10	+ 0·12	+ 0·42	
25	R	− 7·7	0·0	+ 0·26	+ 0·09	+ 0·10	+ 0·44	
28	M	− 8·0	0·0	+ 0·29	+ 0·12	+ 0·11	+ 0·45	δ Urs. Min. and 37 R. P. L.
Feb. 18	R	− 7·9	0·0	+ 0·41	+ 0·15	+ 0·12	+ 0·40	δ Urs. Min. and 40 R. P. L.
22	M	− 9·0	0·0	+ 0·43	+ 0·12	+ 0·12	+ 0·39	
25	R	− 8·9	0·0	+ 0·46	+ 0·14	+ 0·12	+ 0·37	δ Urs. Min. and 51 Cephei
Mar. 1	R	− 9·2	+ 0·2	− 0·05	+ 0·20	+ 0·09	+ 0·38	
4	M	− 9·2	+ 0·2	− 0·15	+ 0·22	+ 0·10	+ 0·38	δ Urs. Min. and 51 Cephei
Apl. 1	M	− 6·9	− 0·1	− 0·22	+ 0·33	+ 0·12	+ 0·35	λ Urs. Min. and 51 Cephei
8	,,	− 7·0	− 0·1	− 0·13	+ 0·36	+ 0·09	+ 0·33	
26	R	− 6·5	− 0·1	− 0·14	+ 0·31	+ 0·07	+ 0·27	155 and 72 R. P. L.
29	M	− 5·2	− 0·1	− 0·10	+ 0·32	+ 0·06	+ 0·29	
May 3	R	− 5·0	0·0	− 0·07	+ 0·37	0·00	+ 0·31	
6	,,	− 6·4	0·0	− 0·08	+ 0·36	+ 0·04	+ 0·33	
10	,,	− 5·1	0·0	− 0·06	+ 0·37	+ 0·08	+ 0·35	
16	,,	− 3·6	0·0	− 0·05	+ 0·43	+ 0·05	+ 0·39	155 and 92 R. P. L.
20	,,	− 6·4	0·0	− 0·04	+ 0·44	+ 0·09	+ 0·44	
24	,,	− 3·9	0·0	+ 0·01	+ 0·50	+ 0·05	+ 0·50	
27	,,	− 4·0	0·0	+ 0·08	+ 0·47	+ 0·04	+ 0·54	
31	,,	− 3·1	0·0	+ 0·15	+ 0·41	+ 0·04	+ 0·59	Polaris and 92 R. P. L.
June 3	M	− 3·6	0·0	+ 0·18	+ 0·43	+ 0·04	+ 0·55	
7	,,	− 3·0	0·0	+ 0·01	+ 0·45	+ 0·04	+ 0·51	
10	,,	− 4·8	0·0	− 0·04	+ 0·46	+ 0·04	+ 0·47	
14	,,	− 3·1	0·0	+ 0·06	+ 0·41	+ 0·06	+ 0·42	Polaris and 110 R. P. L.
28	,,	− 1·6	0·0	+ 0·12	+ 0·36	+ 0·05	+ 0·71	Polaris and 110 R. P. L.
July 1	,,	− 0·2	0·0	+ 0·05	+ 0·34	+ 0·10	+ 0·67	
12	,,	− 1·0	0·0	− 0·47	+ 0·34	+ 0·10	+ 0·51	
22	,,	− 0·2	0·0	− 0·19	+ 0·28	+ 0·08	+ 0·36	ζ Ophiuchi and 110 R.P.L.
29	,,	− 0·1	0·0	− 0·08	+ 0·27	+ 0·09	+ 0·61	51 Cephei & δ Urs. Min.
Aug. 27	,,	+ 4·7	0·0	− 0·78	+ 0·02	+ 0·03	+ 0·51	θ Ophiuchi and δ Urs.Min.
Oct. 1	R	+ 6·2	0·0	− 0·24	− 0·02	+ 0·09	+ 0·47	
5	,,	+ 5·4	0·0	− 0·46	+ 0·05	+ 0·10	+ 0·47	
10	,,	+ 8·0	0·0	− 0·42	+ 0·13	+ 0·10	+ 0·46	72 and 155 R. P. L.
Nov. 3	,,	+ 9·5	0·0	− 0·82	+ 0·18	+ 0·11	+ 0·44	92 and 155 R. P. L.
7	,,	+ 9·5	0·0	− 0·81	+ 0·19	+ 0 11	+ 0·44	
17	,,	+ 10·9	0·0	− 1·06	+ 0·33	+ 0·13	+ 0·43	
21	,,	+ 10·5	0·0	− 1·05	+ 0·32	+ 0·14	+ 0·43	92 and 155 R. P. L.
26	,,	+ 11·7	0·0	− 1·09	+ 0·26	+ 0·16	+ 0·43	

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Corrections to the Nautical Almanac Stars as given by the Madras Mean Positions.

Stars.	Approximate Place 1884.			1883.			1884.			1885.		
				Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h.	m.	° ′		s	″		s	″		s	″
ι Ceti	0	14	99 28	7	− 0·06	− 2·7	13	+ 0·04	+ 0·2	...	.....	.....
12 Ceti	0	24	94 36	...	.....	.....	2	+ 0·06	+ 1·1	...	.....	.....
β Ceti	0	38	108 37	...	.....	.....	2	+ 0·05	+ 1·6	...	.....	.....
δ Piscium	0	43	83 3	7	+ 0·04	− 0·7	3	− 0·04	0·0	...	.....	.....
β Andromedæ ...	1	3	55 0	2	− 0·07	− 1·0	11	− 0·06	+ 0·1	1	0·0	− 0·7
α Urs. Min. (*Polaris*)..	1	16	1 19	14	+ 0·23	+ 0·3	6	+ 0·62	+ 0·7	...	.....	.....
θ Ceti...	1	18	98 47	2	− 0·04	+ 1·1	...	.....	.....	...	.....	.....
η Piscium	1	25	75 15	4	0·00	+ 0·1	1	− 0·12	− 0·7	...	.....	.....
α Eridani (*Achernar*).	1	33	147 50	1	+ 0·27	+ 0·9	...	.....	.....	...	.....	.....
ν Piscium	1	35	85 6	1	+ 0·04	− 0·7	...	.....	.....	...	.....	.....
ο Piscium	1	39	81 26	10	− 0·03	+ 0·8	10	0·00	− 0·8	...	.....	.....
β Arietis	1	48	69 46	13	+ 0·07	− 0·6	...	.....	.....	...	.....	.....
α Arietis	2	1	67 5	17	+ 0·01	+ 0·4	2	− 0·04	+ 0·1	...	.....	.....
67 Ceti	2	11	96 57	3	− 0·04	− 0·1	4	+ 0·05	+ 0·4	...	.....	.....
ξ² Ceti	2	22	82 4	1	+ 0·01	− 2·5	...	.....	.....	...	.....	.....
γ² Ceti	2	37	87 15	2	0·00	− 1·2	...	.....	.....	...	.....	.....
σ Arietis	2	45	75 24	7	+ 0·03	− 1·1	13	+ 0·02	− 2·2	...	.....	.....
α Ceti	2	56	86 22	7	− 0·04	− 1·0	2	+ 0·07	+ 1·0	...	.....	.....
δ Arietis	3	5	70 43	7	− 0·04	− 1·0	8	− 0·04	+ 0·3	...	.....	.....
α Persei	3	16	40 33	3	− 0·13	− 0·4	...	.....	.....	...	.....	.....
ο Tauri	3	19	81 23	6	− 0·05	− 1·3	6	− 0·04	− 0·3	8	+ 0·01	− 0·7
ε Eridani	3	27	99 51	6	+ 0·07	+ 0·1	...	.....	...	9	− 0·01	− 0·5
η Tauri	3	41	66 15	4	+ 0·03	− 0·7	2	− 0·02	+ 2·1	...	.....	.....
γ¹ Eridani	3	53	103 50	...	.....	.....	6	+ 0·02	+ 0·8	...	.....	.....
A Tauri	3	58	68 14	16	+ 0·01	− 0·7	...	.....	.....	9	+ 0·02	− 1·0
ο¹ Eridani	4	6	97 8	1	+ 0·07	− 2·3	...	.....	.....	...	.....	.....
γ Tauri	4	13	74 39	13	− 0·01	0·0	...	.....	.....	...	.....	.....
ε Tauri	4	22	71 5	2	+ 0·05	+ 0·1	3	− 0·06	− 0·1	...	.....	.....
α Tauri (*Aldebaran*) ...	4	29	73 44	8	+ 0·02	− 0·2	3	− 0·08	− 0·4	...	.....	.....
μ Eridani	4	40	93 28	...	.....	.....	...	.....	.....	10	+ 0·02	+ 0·5
ι Aurigæ	4	49	57 1	9	− 0·01	+ 1·6	...	.....	.....	...	.....	.....
α Aurigæ (*Capella*) ...	5	8	44 7	9	− 0·17	− 2·3	...	.....	.....	...	.....	.....
β Orionis (*Rigel*) ...	5	9	98 20	8	− 0·02	− 1·1	1	+ 0·05	+ 1·8	...	.....	.....
β Tauri	5	19	61 30	4	− 0·03	− 0·1	1	− 0·10	+ 3·1	...	.....	.....
δ Orionis	5	26	90 23	1	+ 0·11	− 0·7	2	+ 0·05	− 2·5	10	+ 0·02	− 2·0

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Corrections to the Nautical Almanac Stars as given by the Madras Mean Positions.

Star.	Approximate Place 1884.			1883.			1884.			1885.		
				Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h.	m.	° ′		s	″		s	″		s	″
α Leporis	5	28	107 54	2	+ 0·02	+ 0·2	...	.....	.....	...	.....	.....
ε Orionis	5	30	91 17	...	.....	.....	1	+ 0·17	+ 1·5	10	− 0·01	+ 1·6
κ Orionis	5	42	99 43	4	+ 0·04	+ 1·5	...	.....	...	10	− 0·06	+ 1·4
α Orionis (*Var.*) ...	5	49	82 37	...	.....	.....	9	0·00	+ 0·7	...	.....	.....
η Geminorum ...	6	8	67 28	10	− 0·01	− 1·3	...	.....	.....	10	+ 0·02	− 1·4
μ Geminorum ...	6	16	67 26	...	.....	.....	1	− 0·06	+ 1·2	...	.....	.....
ξ Geminorum ...	6	39	76 59	10	− 0·01	− 0·9	...	.....	.....	10	+ 0·01	− 0·3
Cephei 51 (*Hev.*) ...	6	46	2 47	10	+ 0·18	− 0·7	8	+ 0·23	− 0·6	12	− 0·30	− 1·2
θ Canis Majoris ...	6	49	101 54	...	.....	.....	...	.....	.....	10	− 0·01	− 0·8
ε Canis Majoris ...	6	54	118 49	...	.....	.....	1	0·00	− 0·7	...	.....	.....
γ Canis Majoris ...	6	59	105 28	...	.....	.....	1	+ 0·06	− 2·4	...	.....	.....
β Canis Minoris ...	7	21	81 29	10	+ 0·02	− 1·6	...	.....	.....	10	+ 0·02	− 1·0
α Can. Min. (*Procyon*)	7	33	84 29	1	.....	.....	1	+ 0·05	− 1·4	...	.....	.....
ξ Argus	7	44	114 34	10	+ 0·04	− 1·2	10	− 0·10	+ 1·9	10	− 0·01	+ 2·6
15 Argûs	8	3	113 58	...	.....	.....	9	− 0·09	− 0·3	...	.....	.....
β Cancri	8	10	80 27	...	.....	.....	...	.....	.....	10	0·00	− 1·5
η Cancri	8	26	69 10	...	.....	.....	2	+ 0·13	− 1·2	...	.....	.....
γ Cancri	8	37	68 7	10	− 0·03	+ 1·1	...	.....	.....	8	− 0·04	0·0
ε Hydræ	8	41	83 9	...	.....	.....	2	+ 0·03	− 1·1	...	.....	.....
α Cancri	8	52	77 42	...	.....	.....	1	+ 0·04	− 0·6	6	+ 0·01	− 0·2
κ Cancri	9	1	78 52	...	.....	.....	1	0·00	+ 0·5	...	.....	.....
83 Cancri	9	13	71 48	...	.....	.....	2	+ 0·16	− 2·5	...	.....	.....
ι Argus	9	14	148 47	10	+ 0·02	+ 2·5	...	.....	.....	...	.....	.....
α Hydræ	9	22	98 9	...	.....	.....	2	+ 0·07	− 0·6	...	.....	.....
ο Leonis	9	35	79 35	...	.....	.....		.....	.....	4	+ 0·02	+ 0·8
ε Leonis	9	39	65 42	...	.....	.....	2	+ 0·22	− 0·2	...	.....	.....
α Leonis (*Regulus.*) ...	10	2	77 28	...	.....	.....	3	+ 0·03	− 3·2	...	.....	.....
γ¹ Leonis	10	14	69 34	...	.....	.....	3	+ 0·02	− 1·0	...	.....	.....
μ Hydræ	10	20	106 15	...	.....	.....	...	.....	.....	10	− 0·04	− 1·1
ρ Leonis	10	27	80 6	...	.....	.....	1	− 0·04	− 1·8	...	.....	.....
l Leonis	10	43	78 50	...	.....	.....	1	+ 0·02	− 1·9	...	.....	.....
d Leonis	10	55	85 46	10	+ 0·02	− 1·0	...	.....	.....	10	+ 0·03	− 1·1
χ Leonis	10	59	82 2	...	.....	.....	2	+ 0·01	− 1·8	...	.....	.....
δ Leonis	11	8	68 50	...	.....	.....	2	+ 0·03	− 0·2	...	.....	.....
τ Leonis	11	22	86 30	10	+ 0·05	+ 0·7	10	− 0·01	− 0·9	8	+ 0·02	− 0·6

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Corrections to the Nautical Almanac Stars as given by the Madras Mean Positions.

Stars.	Approximate Place 1884.			1883.			1884.			1885.		
				Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h.	m.	° ′		s	″		s	″		s	″
β Leonis	11	43	74 47	...	.....	.....	1	+ 0·07	− 0·8	...	.....	.....
π Virginis	11	55	82 44	10	− 0·05	− 1·1	10	0·00	− 2·2	10	+ 0·02	− 1·8
ε Corvi	12	4	111 58	...	.....	.....	1	− 0·15	− 1·7	...	.....	.....
η Virginis	12	14	90 1	...	.....	.....	3	− 0·03	+ 0·7	..	.....	.....
δ² Corvi	12	24	105 52	...	.....	.....	...	.....	.....	5	− 0·07	+ 0·7
δ Virginis ...	12	50	85 58	20	+ 0·02	− 3·2	...	.....	.....	2	+ 0·03	− 2·3
ε Virginis	12	56	78 25	30	− 0·01	+ 0·1	10	+ 0·02	− 1·6	.	.....	.....
θ Virginis	13	4	94 55	11	+ 0·01	− 2·0	...	.....	.....	...	.....	.....
α Virginis (*Spica*) ...	13	19	100 33	...	.....	.....	1	− 0·08	− 1·4	...	.....	.....
ζ Virginis	13	29	90 0	10	+ 0·17	+ 2·4	...	.....	.....	...	.....	.....
τ Bootis	13	42	71 58	10	− 0·03	− 3·2	...	.....	.....	...	.....	.....
η Ursæ Majoris ...	13	48	40 6	10	− 0·14	− 3·0	...	.....	.....	...	.....	.....
η Bootis	13	49	71 1	10	− 0·13	+ 1·8	1	+ 0·12	− 1·0	...	.....	.....
τ Virginis	13	56	87 54	...	.....	.....	2	+ 0·11	− 2·8	...	.....	.....
α Bootis (*Arcturus*)...	14	10	70 13	...	.....	.....	3	+ 0·01	− 1·2	...	.....	.....
ρ Bootis	14	27	59 7	...	.....	.....	1	− 0·04	− 2·5	...	.....	.....
ε² Bootis	14	40	62 26	...	.....	.....	4	− 0·06	− 1·1	...	.....	.....
α Libræ	14	44	105 34	...	.....	.....	3	+ 0·09	− 4·0	...	.....	.....
β Ursæ Minoris ...	14	51	15 22	5	− 0·06	− 2·0	...	.....	.....	...	.....	.....
β Libræ	15	11	98 57	10	+ 0·05	− 0·5	3	− 0·02	+ 0·2	...	.....	.....
α Coronæ ...	15	30	62 54	...	.....	.....	7	− 0·05	− 0·4	...	.....	.....
α Serpentis	15	39	83 13	14	+ 0·01	− 0·9	10	+ 0·05	+ 0·3	...	.....	.....
ε Serpentis	15	45	85 10	10	0·00	− 1·9	...	.....	.....	...	.....	.....
ζ Ursæ Minoris ...	15	48	11 51	...	.....	.....	1	− 0·03	− 2·7	...	.....	.....
β¹ Scorpii	15	59	109 29	...	.....	.....	5	+ 0·05	− 0·6	...	.....	.....
δ Ophiuchi	16	8	93 24	...	.....	.....	2	− 0·03	− 0·8	...	.....	.....
γ Herculis	16	17	70 34	10	− 0·02	− 0·7	...	.....	.....	...	.....	.....
α Scorpii (*Antares*) ...	16	22	116 10	...	.....	.....	2	+ 0·02	+ 0·4	...	.....	.....
ζ Ophiuchi	16	31	100 20	20	+ 0·02	− 0·8	...	.....	.....	...	.....	.....
ζ Herculis	16	37	58 11	...	.....	.....	3	− 0·13	+ 0·8	...	.....	.....
ε Ursæ Minoris ..	16	58	7 46	2	+ 0·11	− 2·9	1	− 0·30	+ 4·9	...	.....	.....
η Ophiuchi	17	4	105 35	20	+ 0·02	+ 0·1	...	.....	.....	5	+ 0·07	− 0·7
α¹ Herculis	17	9	75 29	...	.....	.....	3	+ 0·01	− 1·7	...	.....	.....
σ Ophiuchi	17	21	85 45	10	+ 0·02	+ 0·7	...	.....	.....	...	.....	.....
α Ophiuchi	17	30	77 21	...	.....	.....	1	+ 0·07	+ 1·1	...	.....	.....

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Corrections to the Nautical Almanac Stars as given by the Madras Mean Positions.

Stars.	Approximate Place 1884.			1883.			1884.			1885.		
				Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h.	m.	° ′		s	″		s	″		s	″
β Ophiuchi	17	38	85 23	20	− 0·03	− 0·6	10	+ 0·01	− 0·9	5	− 0·06	+ 0·1
μ Herculis	17	42	62 13	...	.....	.....	4	− 0·02	− 0·4	...	.....	.....
72 Ophiuchi	18	2	80 27	...	.....	.....	10	− 0·01	− 1·5	4	− 0·01	− 1·9
μ Sagittarii	18	7	111 5	...	.....	.....	1	− 0·05	− 0·4	...	.....	.....
δ Ursæ Minoris ...	18	10	3 23	2	− 1·21	− 1·3	9	+ 0·14	+ 1·4	12	− 0·11	− 0·5
η Serpentis	18	15	92 56	20	+ 0·01	+ 1·5	...	.....	.....	1	− 0·01	+ 1·1
λ Sagittarii	18	21	115 29	20	+ 0·02	− 2·2	2	+ 0·18	− 2·1	1	− 0·05	− 1·3
α Lyræ (*Vega*) ...	18	33	51 19	...	.....	.....	6	− 0·14	− 1·8	...	.....	.....
β¹ Lyræ (*Var.*) ...	18	46	56 46	...	.....	.....	4	− 0·08	+ 0·1	...	.....	.....
ε Aquilæ	18	54	75 5	20	− 0·01	− 0·9	...	.....	.....	1	+ 0·05	− 1·7
ω Aquilæ	19	12	78 37	...	.....	.....	1	+ 0·05	− 0·8	...	.....	.....
δ Aquilæ	19	20	87 7	...	.....	.....	2	+ 0·02	− 0·5	...	.....	.....
λ Ursæ Minoris ...	19	40	1 3	...	.....	.....	5	− 0·62	+ 0·2	6	− 0·77	+ 0·6
γ Aquilæ	19	41	79 40	...	.....	.....	4	− 0·07	− 1·2	...	.....	.....
α Aquilæ (*Altair*) ...	19	45	81 26	...	.....	.....	3	+ 0·02	− 1·0	2	− 0·02	− 1·0
β Aquilæ	19	50	83 53	...	.....	.....	1	0·00	− 1·1	...	.....	.....
θ Aquilæ	20	5	91 10	20	− 0·01	− 0·4	20	+ 0·04	+ 0·2	10	+ 0·03	− 1·1
α² Capricorni ...	20	12	102 54	...	.....	.....	2	+ 0·12	− 2·9	...	...	.....
ε Delphini	20	28	79 5	25	− 0·02	+ 0·6	10	− 0·03	+ 0·6	10	− 0·02	− 1·2
α Cygni	20	37	45 8	...	.....	.....	5	− 0·11	− 2·6	...	.....	.....
ε Aquarii	20	41	99 55	21	+ 0·02	0·0	10	− 0·06	+ 1·4	10	+ 0·04	− 0·5
32 Vulpeculæ ...	20	50	62 23	...	.....	.....	1	− 0·14	+ 2·1	...	.....	.....
θ Capricorni... ...	20	59	107 42	20	− 0·01	+ 1·7	1	+ 0·05	− 0·9	6	− 0·06	+ 0·3
61¹ Cygni	21	2	51 49	...	.....	.....	2	+ 0·09	− 2·1	...	.....	.....
ζ Cygni	21	8	60 15	...	.....	.....	1	− 0·02	− 2·7	...	.....	.....
α Cephei	21	16	27 54	...	.....	.....	8	− 0·10	− 0·2	...	.....	.....
β Aquarii	21	25	96 5	...	.....	.....	2	+ 0·05	− 0·3	...	.....	.....
ε Pegasi	21	38	80 39	20	− 0·05	− 1·0	...	.....	.....	...	.....	.....
α Aquarii	22	0	90 53	21	+ 0·05	+ 0·7	1	+ 0·09	+ 1·4	...	.....	.....
θ Aquarii	22	11	98 22	23	+ 0·01	+ 0·3	...	.....	.....	...	.....	.....
γ Aquarii	22	16	91 58	10	0·00	− 0·4	10	+ 0·03	+ 1·7	4	0·00	+ 1·6
ζ Pegasi	22	36	79 46	...	.....	.....	2	− 0·02	+ 1·0	...	.....	.....
λ Aquarii	22	47	98 12	15	+ 0·02	+ 0·3	14	+ 0·05	+ 1·5	3	+ 0·02	+ 0·4
α Pis. Aus. *Fomalhaut.*	22	51	120 14	...	.....	.....	2	− 0·01	− 0·1	...	.....	.....
α Pegasi (*Markab*) ...	22	59	75 25	11	− 0·03	+ 1·6	..	.....	.....	...	.....	.....

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Corrections to the Nautical Almanac Stars as given by the Madras Mean Positions.

Stars.	Approximate Place 1884.		1883.			1884.			1885.		
			Obs.	R. A.	P. D.	Obs.	R. A.	P. D.	Obs.	R. A.	P. D.
	h. m.	° ′		s	″		s	″		s	″
γ Piscium	23 11	87 21	8	0·00	− 1·8	2	+ 0·04	+ 0·4	...	.....	.....
κ Piscium	23 21	89 23	...	.....	.....	1	− 0·04	+ 3·6	...	.....	.....
ι Piscium	23 34	85 0	...	.....	.....	1	− 0·09	+ 1·7	...	.....	.....
ω Piscium	23 53	83 47	...	.....	.....	1	+ 0·03	+ 0·7	...	.....	.....

ERRATA.

Page	No.	Subject	For	Read
		Errata in Vol. VII.		
255	9	Precession in R. A.	2·8712	2·8702
257	69	,, ...	2·7103	1·7103
287	566	,, ...	3·9943	3·9936
		Errata in Vol. VIII.		
80	62	Date	Sep.	Feb.
53	120	Sign of Precession in R. A.	−	+

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SEPARATE RESULTS

OF

OBSERVATIONS

OF THE FIXED STARS

MADE WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1883

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Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
1		*Stone* 8.			
Nov. 14	7·0	0 1 22·53	...	116 0 14·0	M
16	7·0	1 22·46	...	0 12·8	M
20	...	1 22·65	4	0 13·6	M
26	7·0	1 22·38	...	0 15·6	M
27	7·0	1 22·51	...	0 12·7	M
2		6 *Ceti.*			
Nov. 15	...	0 5 18·51	...	106 6 38·5	M
29	...	5 18·40	...	6 35·4	M
Dec. 4	...	5 18·41	...	6 37·4	R
5	...	5 18·31	...	6 37·3	R
6	...	5 18·43	...	6 38·9	R
3		*Stone* 63.			
Nov. 16	...	0 7 48·55	...	116 56 13·1	M
21	...	7 48·51	...	56 10·6	M
26	...	7 48·24	...	56 12·4	M
27	...	7 48·39	...	56 9·6	M
30	...	7 48·51	...	56 14·1	M
4		*Taylor* 37.			
Nov. 14	...	0 10 13·79	...	122 5 41·5	M
29	...	10 13·51	...	5 43·0	M
Dec. 4	...	10 13·68	...	5 45·9	R
5	...	10 13·73	...	5 46·2	R
6	...	10 13·68	...	5 45·7	R
5		8 *Ceti* ι			
Dec. 7	...	0 13 27·88	...	99 28 19·5	R
8	...	13 27·84	...	28 20·0	R
17	...	13 27·85	...	28 20·2	R
18	...	13 27·79	...	28 20·4	R
19	...	13 27·72	...	28 20·8	R
20	...	13 27·81	...	28 19·9	R
22	...	13 27·80	...	28 19·1	R

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
6		*Stone* 109.			
Nov. 15	7·3	0 14 18·79	...	126 33 8·4	M
16	7·0	14 18·72	...	33 10·2	M
21	7·0	14 18·75	...	33 11·3	M
26	7·0	14 18·72	...	33 9·8	M
30	7·0	14 18·88	...	33 12·2	M
7		*Taylor* 78.			
Nov. 14	7·0	0 18 31·02	...	92 52 1·6	M
20	6·7	18 30·94	...	52 1·2	M
Dec. 4	6·7	18 31·00	...	51 59·1	R
5	6·7	18 31·06	...	51 59·0	R
6	6·7	18 30·99	...	51 59·1	R
8		*Stone* 158.			
Nov. 15	...	0 21 22·93	...	116 11 42·3	M
16	...	21 22·83	...	11 42·1	M
21	...	21 22·87	...	11 41·8	M
29	...	21 22·65	4	11 38·9	M
Dec. 7	...	21 22·67	...	11 40·1	R
9		*Taylor* 101.			
Nov. 30	...	0 22 40·16	...	180 33 47·1	M
Dec. 4	...	22 40·20	...	33 43·5	R
5	...	22 40·24	...	33 43·9	R
6	...	22 40·06	...	33 45·3	R
8	...	22 40·09	...	33 43·4	R
10		*Taylor* 115.			
Nov. 14	...	0 24 31·62	5	114 26 8·4	M
16	...	24 31·82	3	26 7·8	M
20	...	24 31·52	...	26 7·3	M
21	...	24 31·65	4	26 7·7	M
26	...	24 31·79	3	26 7·1	M
11		*Stone* 237.			
Nov. 14	7·0	0 32 53·34	...	136 32 50·0	M
15	7·0	32 53·46	...	32 47·3	M
16	7·0	32 53·44	...	32 49·6	M
20	...	32 53·45	3	32 50·7	M
21	7·0	32 53·30	4	32 50·4	M

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Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
12		*Stone* 240.			
Dec. 17	7·0	0 33 16·88	...	133 56 18·4	R
18	7·0	33 16·97	...	56 19·6	R
19	7·0	33 16·87	...	56 19·6	R
20	7·0	33 16·90	...	56 19·6	R
22	7·0	33 16·91	...	56 19·6	R
13		*Taylor* 181.			
Nov. 5	...	0 34 16·83	...	135 26 24·7	M
14		*Taylor* 215.			
Nov. 14	...	0 39 25·06	...	133 18 51·6	M
15	...	39 25·09	...	18 51·8	M
16	...	39 25·01	...	18 51·5	M
21	...	39 24·99	...	18 52·8	M
23	...	39 25·15	...	18 53·4	M
15		*W. B. E.* O. 658.			
Dec. 4	9·1	0 39 36·26	...	88 55 54·4	R
16		63 *Piscium* δ			
Nov. 26	...	0 42 36·66	...	83 3 8·9	M
27	...	42 36·60	...	3 7·1	M
29	...	42 36·69	...	3 5·1	M
Dec. 11	...	42 36·66	...	3 6·8	R
20	...	42 36·68	...	3 5·8	R
22	...	42 36·72	...	3 6·8	R
31	...	42 36·82	...	3 5·8	M
17		*Anon.*			
Nov. 30	9·0	0 42 38·72	...	89 0 20·4	M
18		*Anon.*			
Dec. 6	9·0	0 43 53·51	...	88 58 5·9	R

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
19		*Taylor* 252.			
Dec. 7	...	0 44 34·58	...	134 1 58·4	R
8	...	44 34·43	4	1 57·3	R
17	...	44 34·28	...	1 59·6	R
18	...	44 34·33	...	1 59·2	R
19	...	44 34·46	...	1 58·9	R
20		*Stone* 342.			
Nov. 14	...	0 46 55·96	...	114 38 36·9	M
15	...	46 55·90	...	38 37·5	M
16	...	46 55·96	...	38 38·1	M
20	...	46 55·91	...	38 37·6	M
21	...	46 55·75	...	38 36·3	M
21		*Stone* 365.			
Nov. 23	...	0 50 15·01	...	118 24 35·5	M
26	...	50 14·73	...	24 34·7	M
27	...	50 14·96	...	24 34·8	M
29	...	50 14·76	...	24 32·1	M
30	...	50 15·08	...	24 35·0	M
22		*R. P. L.* 10.			
Nov. 12	...	0 51 28·43	3	1 36 16·7	M
13	...	51 27·48	3	16·7	M
23		*Anon.*			
Nov. 10	7·0	0 52 8·16	...	131 53 18·5	M
24		2 *Ursæ Minoris.*			
Jan. 5	...	0 52 57·38	3	4 22 15·0	R
25		*Stone* 392.			
Nov. 14	...	0 55 50·27	...	129 32 54·9	M
16	...	55 50·22	...	32 57·4	M
20	...	55 50·28	...	32 56·9	M
21	...	55 50·22	...	32 56·9	M
26	...	55 50·03	...	32 56·5	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
26		*R. P. L.* 14.			
Dec. 29	...	0 56 36·82	3	3 28 41·6	R
27		*Stone* 407.			
Nov. 15	...	0 57 32·77	5	137 1 35·8	M
23	...	57 32·71	...	1 40·2	M
27	...	57 32·55	...	1 36·7	M
30	...	57 32·82	...	1 36·9	M
Dec. 7	...	57 32·46	...	1 37·5	R
28		30 *Ceti*.			
Nov. 14	...	1 1 53·21	...	100 24 42·8	M
16	...	1 52·99	...	24 40·5	M
20	...	1 53·04	5	24 42·6	M
26	...	1 53·04	...	24 44·3	M
29	...	1 53·21	6	24 43·4	M
29		43 *Andromedæ* β			
Jan. 1	...	1 3 10·83	...	54 59 59·5	R
5	...	3 11·00	...	59 57·9	R
30		*Taylor* 391.			
Nov. 15	...	1 6 51·54	...	121 25 18·7	M
16	...	6 51·57	...	25 19·5	M
23	...	6 51·42	...	25 20·9	M
26	...	6 51·34	...	25 18·7	M
27	...	6 51·46	...	25 17·8	M
31		*Anon.*			
Nov. 9	9·0	1 9 4·03	5	145 51 44·7	M
32		*Anon.*			
Jan. 2	8·0	1 10 7·77	...	124 38 59·1	R
3	8·0	10 7·72	...	38 59·8	R
33		*Stone* 489.			
Dec. 11	6·7	1 10 57·89	...	132 37 39·5	R
17	6·7	10 57·79	...	37 39·3	R
18	6·7	10 57·65	...	37 39·4	R
19	7·0	10 57·74	...	37 39·2	R
20	6·7	10 57·84	...	37 39·0	R
34		*Anon.*			
Jan. 5	7·0	1 13 7·84	...	130 43 13·0	R
Nov. 10	7·0	13 7·66	...	43 14·7	M
13	7·0	13 7·70	...	43 13·0	M
14	7·0	13 7·71	6	43 14·6	M
35		*Taylor* 428.			
Nov. 15	6·7	1 13 33·26	...	133 56 57·9	M
16	...	13 33·21	...	56 58·0	M
20	6·7	13 33·18	...	56 59·7	M
21	...	13 33·05	3	56 58·9	M
Dec. 22	6·7	13 33·12	...	56 57·5	R
36		*R. P. L.* 18.			
Dec. 28	...	1 13 33·26	3	2 2 52·1	R
37		1 *Ursæ Minoris a, Polaris—s.p.*			
Apl. 3	...	1 15 49·92	3	1 18 55·7	M
4	...	15 49·81	3	18 54·8	M
5	...	15 49·63	3	18 54·5	M
6	...	15 49·95	3	18 53·7	M
7	...	15 49·98	3	18 54·3	M
9	...	15 50·55	3	18 55·4	M
16	...	15 50·03	3	18 54·1	M
17	...	15 49·75	3	18 53·2	M
21	...	15 49·25	3	18 51·8	M
May 3	...	15 50·46	3	18 56·1	R
5	...	15 52·99	3	18 54·3	R
7	...	15 52·20	3	18 54·8	R
8	...	15 51·12	3	18 54·5	R
9	...	15 50·58	3	18 54·5	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
38		45 *Ceti* θ^1			
Jan. 2	...	1 18 10·33	...	98 47 15·7	R
3	...	18 10·46	...	47 15·9	R
39		93 *Piscium* ρ			
Dec. 18	...	1 19 57·00	...	71 26 7·9	R
40		*Anon.*			
Dec. 5	9·7	1 20 7·18	3	122 56 18·0	R
6	9·7	20 7·27	4	56 19·3	R
41		*Taylor* 487.			
Nov. 14	...	1 24 51·92	...	116 48 45·2	M
16	...	24 51·92	...	48 45·8	M
20	...	24 51·87	5	48 47·4	M
21	...	24 51·83	5	48 46·1	M
23	...	24 52·03	...	48 47·5	M
42		99 *Piscium* η			
Dec. 27	...	1 25 13·33	...	75 15 28·0	R
28	...	25 13·31	...	15 27·9	R
29	...	25 13·43	...	15 27·1	R
31	...	25 13·34	...	15 28·4	M
43		*Stone* 596.			
Jan. 5	7·0	1 25 30·74	...	128 23 39·4	R
9	...	25 30·59	6	23 39·7	M
Nov. 15	7·0	25 30·65	...	23 40·2	M
Dec. 4	7·0	25 30·43	...	23 38·9	R
5	7·0	25 30·41	...	23 39·5	R
44		*Taylor* 524.			
Nov. 16	...	1 29 48·62	4	147 36 1·8	M
30	...	29 48·54	...	36 1·2	M
Dec. 4	...	29 48·47	...	36 2·8	R
5	...	29 48·52	...	36 3·5	R
6	...	29 48·28	...	35 59·5	R
45		*a Eridani, Achernar.*			
Dec. 28	...	1 33 21·53	...	147 49 54·4	R
46		*Anon.*			
Jan. 1	7·0	1 33 27·38	...	138 31 50·8	R
2	7·0	33 27·47	...	31 50·3	R
3	7·0	33 27·34	...	31 50 5	R
4	7·0	33 27·37	...	31 51·1	R
47		106 *Piscium* ν			
Dec. 27	...	1 35 20·52	...	85 6 18·0	R
48		*Anon.*			
Jan. 5	8·0	1 36 20·23	...	149 14 24·3	R
Dec. 5	8·0	36 20·07	...	14 24·6	R
6	8·0	36 19·97	...	14 24·3	R
20	8·0	36 20·02	...	14 25·8	R
49		110 *Piscium* o			
Nov. 12	...	1 39 12·86	...	81 25 55·9	M
13	...	39 12·98	...	25 56·0	M
16	...	39 12·94	...	25 54·6	M
20	...	39 12·79	...	25 55·5	M
21	...	39 12·92	...	25 55·1	M
23	...	39 12·86	...	25 56·6	M
27	...	39 12·84	...	25 53·9	M
30	...	39 12·90	...	25 54·8	M
Dec. 28	...	39 12·89	...	25 54·6	R
29	...	39 12·90	...	25 54·7	R
50		*Taylor* 578.			
Nov. 14	...	1 40 6·98	...	96 19 7·3	M
15	...	40 6·86	4	19 8·3	M
Dec. 4	...	40 6·71	...	19 4·9	R
8	...	40 6·74	...	19 5·4	R
17	...	40 6·76	..	19 6·2	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883 h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
51		*Stone* 704.			
Jan. 1	8·0	1 41 46·30	...	133 54 17·9	R
2	8·0	41 46·19	...	54 17·2	R
3	7·0	41 45·95	...	54 17·9	R
4	7·0	41 46·02	...	54 15·9	R
5	7·0	41 46·15	...	54 15·8	R
52		*Taylor* 616.			
Nov. 14	...	1 46 22·11	5	140 47 8·7	M
15	...	46 22·09	5	47 8·2	M
20	...	46 22·04	...	47 10·0	M
27	...	46 22·09	...	47 7·8	M
30	...	46 22·03	5	47 8·0	M
53		6 *Arietis* β			
Dec. 4	...	1 48 10·64	...	69 45 51·5	R
5	...	48 10·60	...	45 51·7	R
6	...	48 10·57	...	45 52·9	R
7	...	48 10·60	...	45 49·9	R
8	...	48 10·63	...	45 50·3	R
11	...	48 10·55	...	45 52·3	R
17	...	48 10·62	...	45 51·8	R
18	...	48 10·61	...	45 52·4	R
19	...	48 10·68	...	45 52·8	R
20	...	48 10·57	...	45 51·2	R
22	...	48 10·64	...	45 52·1	R
25	...	48 10·61	...	45 51·6	R
26	...	48 10·58	...	45 51·2	R
54		*Taylor* 626.			
Jan. 2	...	1 48 20·95	...	129 10 21·5	R
3	...	48 20·89	...	10 21·6	R
4	...	48 20·98	...	10 19·9	R
5	...	48 21·11	...	10 19·6	R
8	...	48 20·78	...	10 23·0	M
55		*Anon.*			
Jan. 4	8·0	1 53 53·49	...	127 35 3·2	R
5	8·0	53 53·47	...	35 2·8	R
9	...	53 53·43	...	35 5·5	M
12	...	53 53·53	...	35 4·6	M
Nov. 13	8·0	53 53·27	...	35 2·6	M

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
56		*Stone* 812.			
Nov. 14	...	1 57 20·60	...	105 52 13·6	M
15	...	57 20·47	...	52 13·6	M
16	...	57 20·44	...	52 13·8	M
23	...	57 20·48	...	52 13·8	M
57		*Stone* 824.			
Jan. 4	7·0	1 59 40·37	...	134 4 6·7	R
5	7·0	59 40·57	...	4 6·2	R
9	...	59 40·48	...	4 4·8	M
58		13 *Arietis a*			
Jan. 1	...	2 0 34·75	...	67 5 28·2	R
2	...	0 34·79	..	5 28·0	R
3	...	0 34·72	...	5 28·3	R
8	...	0 34·60	...	5 31·6	M
11	...	0 34·59	...	5 31·4	M
12	...	0 34·75	...	5 30·3	M
15	...	0 34·58	...	5 28·7	M
16	...	0 34·64	...	5 30·5	M
18	...	0 34·59	...	5 30·7	M
19	...	0 34·77	...	5 32·0	M
20	...	0 34·78	...	5 31·2	M
22	...	0 34·80	...	5 30·4	M
24	...	0 34·72	...	5 29·6	M
Dec. 25	...	0 34·66	...	5 29·4	R
26	...	0 34·69	...	5 28·7	R
29	...	0 34·70	...	5 30·0	R
31	...	0 34·69	...	5 29·5	M
59		*Stone* 834.			
Nov. 20	7·0	2 1 19·24	...	142 33 5·4	M
Dec. 4	6·7	1 18·88	...	33 3·5	R
5	6·7	1 18·90	...	33 4·8	R
6	6·7	1 18·80	...	33 3·9	R
7	6·7	1 19·06	...	33 5·0	R
60		*Stone* 850.			
Nov. 15	7·0	2 3 48·66	...	126 22 45·6	M
16	...	3 48·62	6	22 44·5	M
Dec. 18	7·0	3 48·31	...	22 46·2	R
20	7·0	3 48·29	...	22 45·0	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
61		*Stone* 870.			
Nov. 14	7·0	2 5 46·73	...	128 55 5·2	M
21	...	5 46·75	...	55 5·2	M
Dec. 4	7·0	5 46·83	...	55 5·4	R
5	7·0	5 46·75	...	55 5·8	R
6	7·0	5 46·58	...	55 5·8	R
62		*Anon.*			
Jan. 1	7·7	2 8 5·62	...	131 48 51·0	R
2	7·7	8 5·48	4	48 51·5	R
63		*Anon.*			
Jan. 5	8·5	2 9 23·47	...	124 51 42·5	R
12	8·5	9 23·67	...	51 43·2	M
16	...	9 23·71	...	51 43·0	M
Nov. 13	8·5	9 23·52	...	51 42·8	M
16	8·5	9 23·83	4	51 44·0	M
64		*Taylor* 750.			
Jan. 4	6·5	2 9 47·80	...	131 42 43·9	R
65		67 *Ceti*.			
Dec. 28	...	2 11 8·73	...	96 57 42·9	R
29	...	11 8·68	...	57 43·9	R
31	...	11 8·88	...	57 44·0	M
66		*Stone* 911.			
Nov. 20	7·0	2 11 58·70	...	143 25 53·9	M
Dec. 4	6·7	11 58·80	...	25 54·0	R
5	6·7	11 58·77	...	25 54·6	R
6	6·7	11 58·78	...	25 54·6	R
7	6·7	11 58·73	...	25 55·1	R
67		*Anon.*			
Jan. 3	7·0	2 14 28·54	...	132 33 31·6	R
4	7·0	14 28·68	...	33 29·9	R
68		*Stone* 935.			
Nov. 21	...	2 16 3·51	...	140 50 20·3	M
27	...	16 3·78	...	50 17·8	M
Dec. 17	6·7	16 3·37	...	50 22·5	R
18	6·7	16 3·37	...	50 23·5	R
20	6·7	16 3·44	...	50 21·7	R
69		*Anon.*			
Jan. 5	8·0	2 18 16·50	...	150 57 53·2	R
70		*Stone* 955.			
Nov. 20	7·0	2 18 48·68	...	150 17 34·1	M
Dec. 4	6·7	18 48·68	...	17 33·0	R
5	6·7	18 48·65	...	17 35·5	R
6	6·7	18 48·63	...	17 34·0	R
7	6·7	18 48·69	...	17 34·0	R
71		*Anon.*			
Jan. 1	7·5	2 19 52·34	...	134 51 28·1	R
2	7·5	19 52·19	...	51 27·6	R
72		73 *Ceti* ζ^2			
Dec. 31	...	2 21 56·29	...	82 3 52·4	R
73		*Anon.*			
Jan. 17	7·0	2 22 8·53	...	131 53 37·3	M
20	...	22 8·64	...	53 38·9	M
Nov. 27	7·0	22 8·55	...	53 35·9	M
Dec. 17	7·0	22 8·25	..	53 37·2	R
74		*Anon.*			
Jan. 4	7·0	2 23 18·01	...	135 34 15·8	R
75		*Stone* 994.			
Jan. 2	7·0	2 24 31·01	...	126 27 49·7	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
76		*Stone* 1000.			
Nov. 21	...	2 25 20·70	5	154 49 23·8	M
Dec. 4	...	25 20·80	...	49 23·4	R
5	...	25 20·80	...	49 25·3	R
6	...	25 20·70	...	49 24·6	R
7	...	25 20·57	...	49 23·5	R
77		*Lacaille* 782.			
Jan. 5	6·5	2 26 46·94	...	148 19 46·3	R
78		*R. P. L.* 26.			
Dec. 29	...	2 27 32·42	3	3 27 48·1	R
		R. P. L. 26.—*s.p.*			
May 5	...	2 27 29·81	2	3 27 49·3	R
79		*Anon.*			
Jan. 1	7·7	2 28 16·93	...	149 23 21·0	R
3	7·7	28 16·37	...	23 21·2	R
4	7·7	28 16·58	...	23 19·8	R
80		77 *Ceti.*			
Nov. 23	...	2 28 56·44	...	98 22 16·8	M
27	...	28 56·28	...	22 16·7	M
Dec. 17	...	28 55·99	...	22 15·7	R
18	...	28 56·02	...	22 15·9	R
20	...	28 56·08	...	22 15·3	R
81		*Anon.*			
Jan. 17	7·0	2 33 12·18	...	137 9 14·7	M
18	...	33 12·02	6	9 12·7	M
19	...	33 12·21	...	9 14·5	M
20	...	33 11·98	...	9 15·1	M
22	...	33 12·43	...	9 15·7	M
82		86 *Ceti* γ—2*nd.*			
Dec. 27	...	2 37 14·25	...	87 15 29·2	R
28	...	37 14·28	...	15 28·8	R
83		*Taylor* 916.			
Jan. 3	...	2 37 26·80	...	128 53 2·0	R
4	...	37 27·02	...	53 0·6	R
5	...	37 27·20	...	53 0·3	R
8	...	37 27·13	6	53 4·2	M
9	...	37 27·09	6	53 1·8	M
84		*Anon.*			
Jan. 2	7·7	2 37 31·16	...	136 6 9·6	R
85		*Taylor* 926.			
Nov. 27	6·7	2 39 2·48	...	115 59 34·0	M
Dec. 4	6·7	39 2·41	...	59 33·9	R
5	6·7	39 2·39	...	59 33·2	R
6	6·7	39 2·28	...	59 32·7	R
7	6·7	39 2·29	...	59 30·5	R
86		*Stone* 1144.			
Dec. 17	7·0	2 42 14·98	...	131 27 2·4	R
18	7·0	42 14·99	...	27 2·6	R
20	7·0	42 15·11	...	27 1·3	R
22	7·0	42 15·14	...	27 0·7	R
25	7·0	42 14·97	...	27 2·9	R
87		*Anon.*			
Jan. 2	7·7	2 42 49·02	...	149 53 8·7	R
88		*Anon.*			
Jan. 17	7·5	2 43 47·31	...	138 24 5·4	M
19	...	43 47·60	...	24 5·7	M
20	7·5	43 47·66	...	24 2·3	M
22	...	43 47·31	5	24 6·8	M
24	...	43 47·99	4	24 7·3	M
89		43 *Arietis* σ			
Dec. 6	...	2 45 2·04	...	75 24 3·1	R
7	...	45 1·90	...	24 2·8	R
8	...	45 1·87	4	24 1·4	R
11	...	45 1·92	...	24 1·5	R
28	...	45 2·06	...	24 2·2	R
29	...	45 2·01	...	24 2·1	R
31	...	45 1·89	...	24 0·8	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
90		*Anon.*			
Jan. 5	7·5	2 46 1·11	...	132 42 36·0	R
9	...	46 1·20	5	42 37·5	M
11	...	46 1·37	5	42 37·4	M
15	...	46 1·16	...	42 38·2	M
16	...	46 1·28	...	42 37·7	M
91		*Stone* 1170.			
Nov. 27	6·7	2 46 38·45	...	131 26 45·2	M
Dec. 5	6·7	46 38·60	...	26 45·3	R
17	6·7	46 38·46	...	26 45·9	R
18	6·7	46 38·46	...	26 46·1	R
20	6·7	46 38·29	...	26 41·7	R
92		*Anon.*			
Jan. 3	7·5	2 47 2·20	...	133 18 51·6	R
4	7·5	47 2·41	...	18 49·9	R
93		*Stone* 1192.			
Dec. 7	7·0	2 49 36·26	...	135 5 3·4	R
11	7·0	49 36·30	...	5 3·0	R
25	7·0	49 36·29	5	5 2·3	R
26	7·0	49 36·40	4	5 2·5	R
28	7·0	49 36·58	...	5 2·6	R
94		*Stone* 1208.			
Jan. 15	...	2 50 58·96	...	146 21 22·1	M
18	...	50 59·06	...	21 25·4	M
19	...	50 58·88	...	21 22·0	M
20	...	50 59·08	...	21 24·4	M
95		*Stone* 1212.			
Dec. 5	7·0	2 51 42·09	...	141 44 1·0	R
6	7·0	51 42·00	...	44 2·4	R
22	7·0	51 42·28	...	44 2·6	R
31	7·0	51 42·25	...	44 3·0	M
96		*Stone* 1223.			
Dec. 29	...	2 52 28·65	5	154 28 45·5	R

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
97		*Taylor* 1024.			
Jan. 1	7·0	2 55 47·36	...	132 20 19·0	R
2	7·0	55 47·20	...	20 18·7	R
5	7·0	55 46·96	4	20 17·9	R
98		*Taylor* 1027.			
Nov. 27	...	2 56 34·86	...	118 32 29·1	M
30	...	56 34·79	...	32 26·6	M
Dec. 7	...	56 34·77	...	32 25·5	R
18	...	56 34·57	...	32 24·6	R
20	...	56 34·71	...	32 24·7	R
99		*Anon.*			
Jan. 18	...	2 57 42·21	6	132 17 53·9	M
19	7·5	57 42·02	...	17 54·1	M
20	7·5	57 41·95	...	17 53·7	M
22	...	57 42·43	...	17 54·9	M
100		*Stone* 1263.			
Dec. 11	6·7	2 58 55·53	...	137 26 3·0	R
17	6·7	58 55·50	6	26 4·2	R
22	6·7	58 55·84	...	26 2·6	R
25	6·7	58 55·67	...	26 2·5	R
26	6·7	58 55·66	...	26 2·1	R
101		*Stone* 1264.			
Jan. 1	7·0	2 59 13·98	6	134 30 42·3	R
3	7·0	59 13·84	...	30 41·8	R
15	7·0	59 13·67	...	30 42·7	M
16	7·0	59 13·98	4	30 42·1	M
102		*Taylor* 1042.			
Jan. 2	...	2 59 43·54	...	134 21 22·2	R
4	...	59 43·56	...	21 20·2	R
9	...	59 43·59	5	21 21·3	M
11	...	59 43·51	...	21 21·7	M
12	...	59 43·49	...	21 21·8	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
103		*R. P. L.* 33.			
Dec. 7	...	3 4 48·88	3	5 30 25·0	R
20	...	4 49·43	3	30 24·0	R
104		57 *Arietis* δ			
Dec. 4	...	3 4 56·31	...	70 42 59·2	R
5	...	4 56·30	...	42 59·5	R
17	...	4 56·29	...	42 59·4	R
18	...	4 56·35	...	42 59·5	R
25	...	4 56·33	...	42 59·4	R
26	...	4 56·31	...	42 59·2	R
31	...	4 56·32	...	42 58·8	M
105		*Stone* 1342.			
Jan. 1	7·0	3 9 50·85	...	130 41 31·9	R
2	7·0	9 50·72	...	41 31·5	R
106		*Anon.*			
Jan. 3	8·0	3 12 16·99	...	126 8 38·7	R
4	8·0	12 17·30	...	8 37·0	R
12	8·0	12 17·40	...	8 37·7	M
107		33 *Persei a*			
Jan. 19	...	3 15 58·29	...	40 36 33·8	M
20	...	15 58·22	...	33 24·1	M
22	...	15 58·35	...	33 22·7	M
108		1 *Tauri o, Var.* 5.			
Jan. 5	...	3 18 31·09	...	81 22 59·6	R
24	...	18 31·07	...	22 59·9	M
31	...	18 30·92	...	23 0·8	M
Feb. 1	...	18 31·07	...	23 0·0	R
Dec. 28	...	18 31·18	...	23 1·9	R
29	...	18 31·07	...	23 2·1	R
109		*Anon.*			
Jan. 4	8·0	3 18 35·56	...	134 32 53·5	R
8	...	18 35·50	...	32 57·3	M
Jan. 11	...	3 18 35·91	3	134 32 55·9	M
12	8·0	18 35·73	...	32 54·0	M
18	8·0	18 35·57	6	32 56·0	M
110		*Stone* 1414.			
Jan. 1	7·0	3 19 17·21	...	130 29 29·7	R
2	7·0	19 17·12	...	29 29·4	R
3	7·0	19 17·02	...	29 28·8	R
111		*Anon.*			
Jan. 12	...	3 26 30·32	...	135 8 1·7	M
15	7·7	26 30·25	...	8 3·9	M
16	7·7	26 30·19	...	8 1·1	M
112		18 *Eridani* ε			
Jan. 4	...	3 27 25·09	...	99 51 19·1	R
5	...	27 25·10	...	51 19·8	R
8	...	27 25·14	...	51 20·9	M
9	...	27 25·12	..	51 19·4	M
17	...	27 25·24	...	51 20·6	M
18	...	27 25·20	...	51 20·9	M
113		*R. P. L.* 34.			
Jan. 2	...	3 28 19·86	3	3 43 28·7	R
3	...	28 20·11	3	43 27·5	R
Dec. 28	...	28 19·15	3	43 28·9	R
29	...	28 18·63	3	46 30·7	R
114		*Stone* 1522.			
Jan. 1	7·0	3 34 39·77	...	136 37 23·0	R
2	7·0	34 39·65	...	37 22·1	R
115		*Stone* 1526.			
Jan. 3	8·0	3 35 9·17	...	136 19 10·3	R
4	8·0	35 9·23	...	19 8·7	R
5	9·0	35 9·38	...	19 8·3	R
8	...	35 9·42	5	19 12·7	M
9	...	35 9·08	5	19 11·7	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
116	25 *Tauri* η, *Alcyone.*				
Jan. 1	...	3 40 31·86	...	66 15 28·1	R
2	...	40 31·82	...	15 28·3	R
4	...	40 31·79	...	15 27·1	R
Dec. 31	...	40 31·75	...	15 27·5	M
117	*Anon.*				
Jan. 12	...	3 44 17·82	...	136 26 45·3	M
18	8·5	44 17·93	...	26 48·2	M
19	...	44 17·83	...	26 45·4	M
20	8·0	44 18·08	...	26 49·2	M
118	*Anon.*				
Jan. 3	9·0	3 49 49·24	...	126 22 57·5	R
4	...	49 49·29	...	22 55·7	R
5	9·0	49 49·41	...	22 55·6	R
12	9·0	49 49·62	...	22 57·5	M
15	9·0	49 49·45	...	22 54·0	M
119	37 *Tauri* A[1].				
Jan. 3	...	3 57 46·64	...	68 14 19·9	R
4	...	57 46·68	...	14 18·1	R
8	...	57 46·69	...	14 21·5	M
9	...	57 46·70	...	14 20·7	M
11	...	57 46·73	...	14 20·7	M
12	...	57 46·69	...	14 19·4	M
15	...	57 46·83	...	14 19·5	M
16	...	57 46·72	...	14 21·0	M
17	...	57 46·65	...	14 22·3	M
25	...	57 46·67	...	14 22·7	M
26	...	57 46·74	...	14 21·8	M
27	...	57 46·64	...	14 22·2	M
29	...	57 46·71	...	14 20·4	M
30	...	57 46·65	...	14 21·1	M
31	...	57 46·85	...	14 21·2	M
Feb. 1	...	57 46·70	...	14 18·4	R
120	*R. P. L.* 35.				
Jan. 1	...	4 0 13·27	3	4 45 17·4	R
2	...	0 13·32	3	45 18·1	R

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
121	38 *Eridani* o^1				
Jan. 11	...	4 6 9·25	...	97 8 35·3	M
122	*a Reticuli.*				
Feb. 8	...	4 12 55·22	4	152 46 1·5	R
9	...	12 55·32	5	46 1·4	R
12	...	12 55·36	...	46 0·4	R
13	...	12 55·20	...	46 1·4	R
123	54 *Tauri* γ				
Jan. 2	...	4 13 8·11	...	74 39 22·6	R
3	...	13 8·14	...	39 21·6	R
4	...	13 8·15	...	39 20·7	R
5	...	13 8·15	...	39 20·5	R
8	...	13 8·16	...	39 22·1	M
9	...	13 8·08	...	39 22·0	M
12	...	13 8·14	...	39 21·1	M
15	...	13 8·17	...	39 22·3	M
16	...	13 8·15	...	39 21·4	M
17	...	13 8·04	...	39 22·9	M
18	...	13 8·04	...	39 23·2	M
19	...	13 8·02	...	39 23·1	M
20	...	13 8·14	...	39 22·6	M
124	*Taylor* 1553.				
Jan. 8	...	4 20 49·41	...	134 17 23·2	M
12	7·7	20 49·56	...	17 24·0	M
15	...	20 49·54	...	17 21·7	M
16	7·0	20 49·48	...	17 22·9	M
125	74 *Tauri* ε				
Jan. 1	...	4 21 47·08	...	71 4 48·7	R
18	...	21 47·10	...	4 50·1	M
126	*Taylor* 1595.				
Jan. 1	7·5	4 27 0·48	...	131 25 38·1	R
3	6·7	27 0·21	...	25 34·0	R
4	6·7	27 0·32	...	25 32·3	R
8	...	27 0·15	...	25 33·9	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
127		87 *Tauri a, Aldebaran.*			
Jan. 31	...	4 29 12·48	...	73 43 40·4	M
Feb. 1	...	29 12·47	...	43 35·6	R
2	...	29 12·48	...	43 37·3	R
3	...	29 12·49	...	43 37·9	R
5	...	29 12·48	...	43 37·6	R
6	...	29 12·55	...	43 36·4	M
7	...	29 12·31	...	43 38·2	M
8	...	29 12·45	...	43 36·4	R
128		*a Doradûs.*			
Feb. 9	...	4 31 28·17	...	145 17 13·6	R
10	...	31 28·27	...	17 14·1	R
12	...	31 28·24	...	17 13·8	R
13	...	31 28·06	...	17 12·0	R
14	...	31 28·32	...	17 13·4	R
129		*Stone* 1991.			
Jan. 2	...	4 32 31·04	...	135 22 29·8	R
3	...	32 30·97	...	22 29·5	R
4	...	32 31·07	...	22 30·2	R
8	...	32 30·99	...	22 30·8	M
130		*Anon.*			
Jan. 11	7·0	4 45 26·36	...	131 47 23·9	M
31	7·0	45 26·50	...	47 24·0	M
Feb. 2	7·0	45 26·50	...	47 22·7	R
3	7·0	45 26·53	...	47 21·9	R
5	7·0	45 26·56	...	47 22·2	R
131		3 *Aurigæ ι*			
Jan. 22	...	4 49 22·41	...	57 1 15·5	M
24	...	49 22·41	...	1 16·6	M
25	...	49 22·42	...	1 15·3	M
26	...	49 22·41	...	1 15·8	M
27	...	49 22·46	...	1 17·6	M
29	...	49 22·44	...	1 16·5	M
30	...	49 22·52	...	1 16·7	M
Feb. 7	...	49 22·37	...	1 14·3	M
8	...	49 22·43	...	1 14·5	R

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
132		*R. P. L.* 37.			
Jan. 4	...	4 50 27·77	3	4 11 50·6	R
8	...	50 27·55	3	11 49·6	M
9	...	50 27·83	3	11 49·1	M
12	...	50 27·80	3	11 47·9	M
15	...	50 27·83	3	11 49·5	M
16	...	50 28·03	3	11 50·6	M
17	...	50 27·79	3	11 52·0	M
18	...	50 27·85	3	11 48·5	M
19	...	50 27·39	3	11 47·5	M
20	...	50 27·75	3	11 50·6	M
		R. P. L. 37—*s. p.*			
May 7	...	4 50 27·22	3	4 11 50·0	R
12	...	50 27·69	3	11 47·5	R
133		7 *Aurigæ ε, Var.* 1.			
Feb. 9	...	4 53 34·14	...	46 21 4·6	R
10	...	53 34·34	...	21 4·0	R
12	...	53 34·55	...	21 3·4	R
13	...	53 34·48	...	21 4·0	R
14	...	53 34·44	...	21 2·6	R
134		*Stone* 2191.			
Jan. 11	7·5	4 56 19·66	6	131 13 20·1	M
25	...	56 19·69	5	13 17·3	M
26	...	56 19·78	...	13 19·7	M
27	7·0	56 19·77	...	13 20·9	M
29	...	56 19·75	...	13 20·8	M
135		*R. P. L.* 39.			
Jan. 15	...	5 4 14·46	3	4 26 1·0	M
16	...	4 13·60	3	26 1·4	M
17	...	4 14·03	3	26 0·5	M
18	...	4 14·13	3	26 0·1	M
20	...	4 14·11	3	26 2·5	M
22	...	4 14·27	3	26 0·3	M
25	...	4 13·76	3	26 5·2	M
27	...	4 13·92	3	26 1·9	M
30	...	4 13·98	3	26 0·7	M
31	...	4 13·90	3	26 4·0	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
		R. P. L. 39.—*s.p.*			
May 18	...	5 4 13·83	3	4 26 3·8	R
19	...	4 13·82	3	26 3·9	R
23	...	4 13·49	3	26 6·1	R
28	...	4 13·95	3	26 5·1	R
June 15	...	4 14·19	3	26 8·5	M
Aug. 8	...	4 14·45	3	26 1·6	R
9	...	4 14·23	3	26 5·1	R
136		13 *Aurigæ a, Capella.*			
Jan. 12	...	5 8 2·75	...	44 7 19·9	M
19	...	8 2·63	...	7 19·5	M
24	...	8 2·66	...	7 19·6	M
26	...	8 2·75	...	7 18·2	M
29	...	8 2·57	...	7 20·2	M
Feb. 14	...	8 2·63	...	7 19·3	R
15	...	8 2·64	...	7 19·8	R
16	...	8 2·52	...	7 19·2	R
17	...	8 2·65	...	7 20·4	R
137		19 *Orionis β, Rigel.*			
Feb. 2	...	5 8 54·88	...	98 20 16·0	R
3	...	8 54·85	...	20 14·9	R
5	...	8 54·85	...	20 15·9	R
8	...	8 54·88	...	20 16·5	R
9	...	8 54·80	...	20 17·8	R
10	...	8 54·83	...	20 15·3	R
12	...	8 54·89	...	20 16·6	R
13	...	8 54·85	...	20 16·8	R
138		112 *Tauri β*			
Jan. 12	...	5 18 53·74	..	61 29 33·5	M
15	...	18 53·76	...	29 35·5	M
16	...	18 53·82	...	29 35·7	M
17	...	18 53·82	...	29 34·8	M
139		*R. P. L.* 40.			
Jan. 15	...	5 24 38·64	3	4 51 36·5	M
16	...	24 38·05	3	51 59·6	M
18	...	24 37·47	3	51 56·7	M
		R. P. L. 40.—*s.p.*			
May 18	...	5 24 37·36	3	4 51 57·5	R
19	...	24 37·68	3	51 58·0	R
23	...	24 37·44	3	51 59·3	R
140		34 *Orionis δ, Var.* 1.			
Jan. 20	...	5 26 1·88	...	90 23 12·9	M
141		11 *Leporis a*			
Jan. 25	...	5 27 34·25	...	107 54 25·2	M
26	...	27 34·21	...	54 26·1	M
142		*R. P. L* 41.—*s.p.*			
June 1	...	5 29 13·81	3	4 44 57·1	R
7	...	29 13·96	3	44 59·2	R
Aug. 8	...	29 14·25	3	44 56·8	R
11	...	29 14·85	3	44 59·3	R
13	...	29 14·19	3	45 0·4	R
14	...	29 13·01	3	45 0·6	R
16	...	29 13·59	3	45 1·0	R
18	...	29 12·54	3	44 59·5	R
143		*R. P. L.* 42.			
Jan. 15	...	5 36 38·91	3	2 40 52·2	M
16	...	36 37·79	3	40 51·1	M
20	...	36 37·11	3	40 55·0	M
24	...	36 37·01	3	40 54·3	M
25	...	36 36·69	3	40 56·7	M
29	...	36 37·54	2	40 52·1	M
Feb. 1	...	36 39·27	3	40 50·0	R
2	...	36 39·21	3	40 51·0	R
7	...	36 38·35	3	40 52·7	M
144		53 *Orionis κ*			
Jan. 19	...	5 42 12·56	...	99 42 45·4	M
27	...	42 12·44	...	42 47·0	M
29	...	42 12·39	...	42 45·3	M
30	...	42 12·39	...	42 47·3	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
145		33 *Aurigæ* δ			
Feb. 8	...	5 49 53·50	..	35 43 34·6	R
9	...	49 53·47	...	43 34·3	R
10	...	49 53·51	...	43 34·2	R
12	...	49 53·71	...	43 32·6	R
13	...	49 53·55	...	43 32·0	R
146		*R. P. L.* 43.			
Jan. 18	...	6 0 28·63	3	3 14 15·6	M
19	...	0 28·64	3	14 15·5	M
20	...	0 28·48	3	14 17·0	M
24	...	0 28·53	3	14 15·5	M
25	...	0 28·05	3	14 18·9	M
		R. P. L. 43.—*s.p.*			
Aug. 10	...	6 0 28·06	3	3 14 15·2	R
16	...	0 27·29	3	14 13·5	R
18	...	0 27·58	3	14 13·6	R
25	...	0 28·63	3	14 13·4	R
147		7 *Geminorum* η			
Feb. 2	...	6 7 48·90	...	67 27 36·4	R
3	...	7 48·88	...	27 36·9	R
5	...	7 48·91	...	27 36·8	R
6	...	7 48·85	...	27 35·4	M
7	...	7 48·76	...	27 37·5	M
9	...	7 48·98	...	27 37·7	R
10	...	7 48·88	...	27 36·6	R
12	...	7 48·86	...	27 38·1	R
13	...	7 48·89	...	27 37·8	R
14	...	7 48·85	...	27 38·0	R
148		31 *Geminorum* ξ			
Feb. 6	...	6 38 43·28	...	76 58 45·4	M
7	...	38 43·42	...	58 48·8	M
15	...	38 43·37	...	58 45·0	R
16	...	38 43·37	...	58 46·3	R
17	...	38 43·39	...	58 45·2	R
19	...	38 43·34	...	58 45·0	R
20	...	38 43·37	...	58 47·2	R
21	...	38 43·30	...	58 46·9	R
22	...	38 43·31	...	58 46·5	R
23	...	38 43·32	...	58 44·8	R

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
149		51 *Cephei* (*Hcv.*).			
Feb. 8	...	6 45 16·50	3	2 46 27·1	R
9	...	45 16·62	3	46 26·8	R
10	...	45 17·40	3	46 26·2	R
12	...	45 16·94	3	46 26·1	R
13	...	45 17·73	3	46 27·5	R
14	...	45 17·27	3	46 26·1	R
15	...	45 17·64	3	46 24·6	R
19	...	45 17·09	3	46 25·3	R
20	...	45 17·58	3	46 26·4	R
24	...	45 18·33	3	46 25·9	R
150		*Anon.*—*2nd Star.*			
Feb. 7	9·5	6 48 35·48	...	70 33 39·0	M
9	9·5	48 35·55	...	33 38·0	R
12	9·5	48 35·30	...	33 37·9	R
13	9·5	48 35·54	...	33 37·0	R
151		*W. B. N.* VI. 1448.			
Feb. 5	9·0	6 49 45·87	...	62 3 38·8	R
6	9·0	49 45·85	...	3 36·7	M
8	9·0	49 45·65	...	3 41·3	R
10	9·0	49 45·72	...	3 40·2	R
14	9·0	49 45·95	...	3 39·4	R
152		22 *Canis Majoris.*			
Feb. 9	...	6 57 3·52	...	117 46 6·6	R
10	...	57 3·57	...	46 5·7	R
12	...	57 3·58	...	46 4·3	R
13	...	57 3·55	...	46 4·7	R
14	...	57 3·59	...	46 5·4	R
153		3 *Canis Minoris* β			
Feb. 9	...	7 20 48·35	...	81 28 33·3	R
10	...	20 48·42	...	28 31·6	R
12	...	20 48·33	...	28 30·7	R
13	...	20 48·35	..	28 30·9	R
14	...	20 48·35	...	28 31·2	R
15	...	20 48·32	...	28 32·8	R
16	...	20 48·29	...	28 31·0	R
17	...	20 48·36	...	28 33·7	R
19	...	20 48·34	...	28 31·5	R
20	...	20 48·36	...	28 32·7	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
154		*77 Geminorum κ*			
Feb. 21	..	7 37 22·78	...	65 19 22·2	R
22	...	37 22·81	...	19 21·5	R
23	...	37 22·95	...	19 21·6	R
26	...	37 22·93	...	19 21·0	R
27	...	37 22·99	...	19 20·3	R
155		*W. B. E.* VII. 1127.			
Feb. 6	9·0	7 38 32·46	...	81 9 24·5	M
9	9·0	38 32·63	...	9 26·0	R
12	9·0	38 32·58	...	9 23·8	R
16	9·0	38 32·64	...	9 22·6	R
17	9·0	38 32·70	...	9 26·3	R
156		*ξ Argûs.*			
Feb. 14	...	7 44 22·48	...	114 33 57·6	R
15	...	44 22·45	...	33 57·6	R
16	...	44 22·49	...	33 57·9	R
17	...	44 22·49	...	33 59·6	R
19	...	44 22·55	...	33 59·3	R
20	...	44 22·47	...	33 59·8	R
21	...	44 22·51	...	33 59·2	R
22	..	44 22·49	...	33 59·2	R
23	...	44 22·47	...	34 1·3	R
24	...	44 22·51	...	33 59·1	R
157		*R. P. L.* 48—*s.p.*			
Aug. 4	...	7 46 45·38	3	3 58 4·3	R
13	...	46 45·11	3	58 3·5	R
14	...	46 44·28	3	58 3·2	R
Sep. 4	...	46 44·31	3	58 3·5	M
14	...	46 45·19	3	58 4·2	M
158		*Lalande* 16364.			
Feb. 6	8·0	8 15 22·51	...	76 0 16·9	M
7	8·0	15 22·48	...	0 18·8	M
8	8·0	15 22·58	..	0 18·7	R
9	8·0	15 22·46	...	0 19·4	R
10	8·0	15 22·36	...	0 17·2	R

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
159		*R. P. L.* 53.—*s.p.*			
July 28	...	8 20 38·26	3	4 32 8·5	R
Aug. 11	...	20 38·49	3	32 7·7	R
13	...	20 38·26	3	32 9·4	R
Oct. 24	...	20 39·04	3	32 8·7	R
25	...	20 38·06	3	32 9·3	R
160		*Lalande* 16797.			
Feb. 7	8·0	8 27 6·59	...	76 3 5·7	M
8	8·0	27 6·60	...	3 3·8	R
9	8·0	27 6·52	...	3 2·9	R
10	8·0	27 6·63	...	3 2·8	R
12	8·0	27 6·73	...	3 2·4	R
161		*R. P. L.* 55—*s.p.*			
Sep. 14	...	8 31 32·19	3	5 40 55·5	M
Oct. 18	...	31 31·69	3	40 55·3	R
22	...	31 31·87	3	40 56·3	R
162		*43 Cancri γ*			
Feb. 17	...	8 36 30·78	...	68 6 42·7	R
19	...	36 30·73	...	6 42·3	R
20	...	36 30·73	...	6 42·9	R
21	...	36 30·77	...	6 42·2	R
22	...	36 30·79	...	6 41·7	R
23	...	36 30·79	...	6 43·3	R
24	...	36 30·74	...	6 41·9	R
26	...	36 30·77	...	6 43·5	R
27	...	36 30·77	...	6 42·0	R
28	...	36 30·85	...	6 41·0	R
163		*R. P. L.* 60—*s.p.*			
Sep. 28	...	8 50 44·02	3	5 21 10·9	M
164		*W. B. E.* IX. 78.			
Feb. 13	9·0	9 6 31·24	...	77 16 15·2	R
14	9·0	6 31·23	...	16 15·8	R
15	9·0	6 31·16	...	16 16·3	R
16	9·0	6 31·32	...	16 15·4	R
17	9·0	6 31·37	...	16 16·2	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
165		*ι Argûs.*			
Feb. 23	...	9 13 57·46	...	148 47 4·1	R
26	...	13 57·37	...	47 6·3	R
27	...	13 57·34	...	47 6·5	R
28	...	13 57·32	...	47 4·7	R
Mar. 1	...	13 57·42	...	47 5·3	R
Apl. 3	...	13 57·62	...	47 6·9	M
4	...	13 57·54	...	47 8·9	M
5	...	13 57·43	...	47 7·7	M
6	...	13 57·64	...	47 8·1	M
7	...	13 57·48	...	47 7·2	M
166		*Lalande* 18405.			
Feb. 13	8·0	9 14 35·45	...	77 32 42·6	R
15	8·0	14 35·38	...	32 43·5	R
17	8·0	14 35·56	...	32 44·5	R
19	8·0	14 35·47	...	32 44·9	R
21	8·0	14 35·49	...	32 44·3	R
167		*W. B. E.* IX. 270.			
Feb. 14	9·0	9 14 55·62	...	77 15 40·4	R
16	9·0	14 55·44	...	15 40·3	R
20	9·0	14 55·34	...	15 40·5	R
22	9·0	14 55·29	...	15 40·8	R
24	9·0	14 55·41	...	15 39·4	R
168		*κ Argûs.*			
Feb. 19	...	9 18 29·18	...	144 30 40·4	R
20	...	18 29·18	...	30 41·6	R
21	...	18 29·18	...	30 41·5	R
22	...	18 29·19	...	30 41·4	R
23	...	18 29·23	..	30 39·8	R
169		*R. P. L.* 62.—*s.p.*			
Sep. 14	...	9 21 24·92	3	2 21 31·7	M
15	...	21 23·97	3	21 32·7	M

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
170		*Lalande* 19559.			
Feb. 19	7·0	9 53 48·59	...	109 47 50·6	R
20	7·0	53 48·61	...	47 50·7	R
21	7·0	53 48·60	...	47 51·3	R
22	7·0	53 48·58	...	47 51·1	R
23	7·0	53 48·61	...	47 51·0	R
171		*Lalande* 19846.			
Feb. 19	8·0	10 5 40·75	...	107 3 28·3	R
20	8·0	5 40·87	...	3 29·4	R
21	8·0	5 40·86	...	3 30·3	R
22	8·0	5 40·84	...	3 29·9	R
23	8·0	5 40·92	...	3 32·6	R
172		33 *Ursæ Majoris* λ			
Feb. 24	...	10 10 1·86	...	46 30 6·0	R
173		*W. B. E.* X. 228.			
Feb. 19	9·0	10 15 3·04	...	104 0 29·3	R
21	9·0	15 2·99	...	0 30·1	R
23	9·0	15 2·97	...	0 29·8	R
26	9·0	15 3·12	...	0 29·2	R
28	9·0	15 3·02	...	0 28·4	R
174		*Lalande* 20089.			
Feb. 20	7·5	10 15 10·63	...	104 54 4·6	R
22	7·5	15 10·54	...	54 4·6	R
24	7·5	15 10·54	...	54 4·0	R
27	7·5	15 10·45	...	54 3·2	R
Mar. 1	7·5	15 10·52	...	54 4·8	R
175		*Anon.*			
Apl. 10	9·7	10 16 1·97	...	84 34 4·8	M
11	9·7	16 1·94	...	34 3·1	M
12	9·7	16 1·95	...	34 1·6	M
13	9·7	16 2·03	...	34 1·4	M
14	9·7	16 2·14	...	34 1·9	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
176		*Lalande* 20205.			
Apl. 6	8·0	10 19 29·37	...	8 50 7·3	M
7	...	19 29·29	...	50 9·2	M
9	8·0	19 29·48	...	50 6·8	M
16	8·0	19 29·28	...	50 8·7	M
18	...	19 29·43	...	50 7·1	M
177		*Lalande* 20521.			
Feb. 19	6·7	10 30 28·02	...	99 58 33·4	R
21	6·7	30 28·07	...	58 34·1	R
23	6·7	30 28·05	...	58 34·2	R
26	6·7	30 28·07	...	58 34·1	R
28	6·7	30 28·08	...	58 33·8	R
178		*Yarnall* 4420.			
Feb. 20	7·0	10 30 42·68	...	101 36 8·5	R
22	7·0	30 42·55	...	36 9·3	R
24	7·0	30 42·55	...	36 8·4	R
27	7·0	30 42·84	...	36 8·4	R
Mar. 1	7·0	30 42·90	...	36 8·4	R
179		58 *Leonis d.*			
Feb. 21	...	10 54 31·03	...	85 45 17·1	R
22	...	54 31·03	...	45 17·1	R
24	...	54 31·01	...	45 16·4	R
26	...	54 31·05	...	45 15·9	R
27	...	54 31·06	...	45 15·2	R
28	...	54 31·00	...	45 15·0	R
Mar. 1	...	54 31·02	...	45 15·5	R
Apl. 3	...	54 31·00	...	45 16·5	M
4	...	54 31·12	...	45 17·3	M
5	...	54 31·11	...	45 16·5	M
180		70 *Leonis θ*			
Feb. 26	...	11 8 5·91	...	73 55 52·2	R
27	...	8 5·97	...	55 52·6	R
28	...	8 6·02	...	55 52·0	R
Mar. 1	...	8 5·97	...	55 50·8	R
Apl. 3	...	8 5·99	...	55 52·4	M

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
181		84 *Leonis τ*			
Feb. 26	...	11 21 55·23	...	86 29 57·7	R
27	...	21 55·26	...	29 57·7	R
28	...	21 55·27	...	29 57·3	R
Mar. 1	...	21 55·18	...	29 57·7	R
Apl. 3	...	21 55·16	...	29 58·3	M
4	...	21 55·20	...	29 58·7	M
5	...	21 55·21	...	29 58·0	M
6	...	21 55·17	...	30 0·0	M
7	...	21 55·18	...	29 59·8	M
14	...	21 55·26	..	29 59·8	M
182		*Anon.*			
Apl. 9	9·5	11 22 33·40	...	92 38 7·3	M
10	9·5	22 33·32	...	38 7·9	M
11	9·5	22 33·44	...	38 6·4	M
12	9·5	22 33·37	...	38 7·2	M
13	9·5	22 33·36	...	38 8·2	M
183		*R. P. L.* 82.			
Feb. 28	...	11 26 39·66	3	3 44 15·9	R
Apl. 3	...	26 39·09	3	44 13·1	M
4	...	26 39·01	3	44 15·5	M
5	...	26 39·21	3	44 14·3	M
6	...	26 39·15	3	44 15·8	M
7	...	26 38·88	3	44 16·3	M
9	...	26 39·83	3	44 15·7	M
16	...	26 38·64	3	44 16·7	M
17	...	26 38·96	3	44 15·3	M
21	...	26 38·08	3	44 15·6	M
		R. P. L. 82,—*s.p.*			
Oct. 19	...	11 26 38·71	3	3 44 18·0	R
23	...	26 38·71	3	44 16·7	R
25	...	26 38·39	3	44 15·6	R
Nov. 9	...	26 39·39	3	44 15·7	M
12	...	26 38·20	3	44 15·1	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
184		*R. P. L.* 87.—*s.p.*			
Nov. 13	...	11 53 32·11	3	2 21 15·2	M
14	...	53 32·22	2	21 16·6	M
Dec. 6	...	53 29·48	3	21 14·1	R
7	...	53 29·93	3	21 14·6	R
185		8 *Virginis* π			
Apl. 3	...	11 54 52·47	...	82 43 58·5	M
4	...	54 52·41	...	44 0·7	M
5	...	54 52·49	...	43 59·8	M
6	...	54 52·53	..	44 1·8	M
7	...	54 52·59	...	43 59·9	M
9	...	54 52·69	...	43 59·6	M
10	...	54 52·72	...	43 59·6	M
11	...	54 52·68	...	43 59·5	M
12	...	54 52·65	...	43 59·8	M
13	...	54 52·66	...	44 1·3	M
186		*R. P. L.* 97.—*s.p.*			
Nov. 12	...	12 37 35·28	3	5 42 53·3	M
Dec. 6	...	37 33·56	3	42 51·8	R
7	...	37 34·10	3	42 51·0	R
187		*R. P. L.* 98.—*s.p.*			
Nov. 9	...	12 48 8·00	3	5 56 45·3	M
Dec. 29	...	48 7·96	3	56 44·8	R
188		*R. P. L.* 99.—*s.p.*			
Dec. 20	...	12 48 16·16	3	5 57 4·4	R
22	...	48 16·23	3	57 4·8	R
189		77 *Ursæ Majoris* ε			
Apl. 3	...	12 48 52·48	...	33 24 17·1	M
4	...	48 52·51	...	24 17·3	M
5	...	48 52·52	...	24 18·5	M
6	...	48 52·86	...	24 17·0	M
7	...	48 52·57	...	24 18·7	M

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
190		43 *Virginis* δ			
Apl. 9	...	12 49 42·57	...	85 57 56·7	M
10	...	49 42·68	...	57 57·6	M
11	...	49 42·66	...	57 58·4	M
12	...	49 42·71	...	57 57·6	M
13	...	49 42·66	...	57 57·5	M
14	...	49 42·69	...	57 56·9	M
16	...	49 42·62	..	57 57·3	M
17	...	49 42·60	...	57 57·8	M
18	...	49 42·64	...	57 58·7	M
19	...	49 42·64	...	57 57·7	M
20	.	49 42·68	...	57 56·4	M
21	.	49 42·66	...	57 57·6	M
23	...	49 42·65	..	57 56·0	M
24	...	49 42·58	...	57 55·2	M
25	...	49 42·67	...	57 56·9	M
26	...	49 42·58	...	57 55·1	M
28	...	49 42·55	...	57 58·3	M
30	...	49 42·64	...	57 57·6	M
May 1	...	49 42·64	...	57 57·0	R
2	...	49 42·63	...	57 58·1	R
191		47 *Virginis* ε			
Apl. 9	...	12 56 21·11	...	78 24 42·1	M
10	...	56 21·05	...	24 45·2	M
11	...	56 21·14	...	24 43·8	M
12	...	56 21·12	...	24 42·4	M
13	...	56 21·15	...	24 43·8	M
14	...	56 21·05	...	24 42·8	M
16	...	56 21·13	...	24 43·3	M
17	...	56 21·07	...	24 43·4	M
18	...	56 21·11	...	24 44·0	M
19	...	56 21·01	...	24 43·9	M
21	...	56 21·13	...	24 45·0	M
23	..	56 21·15	...	24 41·6	M
24	...	56 21·16	...	24 41·9	M
25	...	56 21·08	...	24 43·6	M
26	...	56 21·13	...	24 44·2	M
28	...	56 21·29	...	24 43·8	M
30	...	56 21·22	...	24 43·2	M
May 1	...	56 21·17	..	24 40·6	R
2	...	56 21·16	...	24 41·3	R
3	...	56 21·25	...	24 40·9	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
May 4	...	12 56 21·20	...	78 24 41·0	R
5	..	56 21·21	...	24 41·2	R
7	...	56 21·28	...	24 41·5	R
8	...	56 21·26	...	24 41·7	R
9	...	56 21·28	...	24 42·1	R
10	...	56 21·22	...	24 38·7	R
11	...	56 21·22	...	24 38·6	R
12	...	56 21·23	...	24 39·5	R
14	...	56 21·19	...	24 40·7	R
15	...	56 21·08	...	24 40·0	R
192		*R. P. L.* 100—*s.p.*			
Jan. 2	...	13 0 26·39	3	3 29 7·4	R
Nov. 13	...	0 26·89	3	29 5·8	M
Dec. 20	...	0 26·43	3	29 9·2	R
28	...	0 27·35	3	29 7·0	R
193		51 *Virginis* θ			
May 3	...	13 3 53·52	...	94 54 50·3	R
4	...	3 53·50	...	54 48·1	R
5	...	3 53·57	...	54 47·9	R
7	...	3 53·55	...	54 48·9	R
8	...	3 53·52	...	54 49·0	R
9	...	3 53·47	...	54 49·5	R
10	...	3 53·51	...	54 48·2	R
11	...	3 53·63	...	54 48·7	R
12	...	3 53·55	...	54 48·8	R
14	...	3 53·55	...	54 48·8	R
15	...	3 53·40	...	54 48·9	R
194		*R. P. L.* 101.—*s.p.*			
Nov. 12	...	13 7 6·31	3	1 43 20·6	M
195		79 *Virginis* ζ			
Apl. 16	...	13 28 44·04	..	89 59 53·4	M
17	...	28 44·06	...	59 51·3	M
18	...	28 44·04	...	59 53·1	M
19	...	28 44·03	...	59 53·0	M
20	...	28 44·04	...	59 51·8	M
21	...	28 44·11	...	59 53·4	M
23	...	28 44·08	..	59 50·8	M
24	...	28 44·07	...	59 51·1	M
25	...	28 44·15	...	59 52·4	M
26	...	28 44·14	...	59 52·0	M

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
196		4 *Bootis* τ			
Apl. 9	...	13 41 42·20	...	71 57 31·6	M
11	...	41 42·08	...	57 32·2	M
12	...	41 42·08	...	57 32·2	M
13	...	41 42·11	...	57 31·5	M
14	...	41 42·08	...	57 30·3	M
16	...	41 42·04	...	57 32·2	M
17	...	41 42·12	...	57 31·0	M
18	...	41 42·03	...	57 30·6	M
19	...	41 42·14	...	57 30·5	M
20	..	41 42·12	...	57 30·3	M
197		85 *Ursæ Majoris* η			
May 3	...	13 42 55·78	...	40 6 7·1	R
4	...	42 55·79	...	6 7·4	R
5	...	42 55·68	...	6 5·9	R
7	...	42 55·62	...	6 7·0	R
8	...	42 55·70	...	6 6·3	R
9	...	42 55·71	...	6 6·5	R
10	...	42 55·71	...	6 4·6	R
11	...	42 55·61	...	6 6·2	R
12	...	42 55·65	...	6 6·2	R
14	...	42 55·66	...	6 6·9	R
198		8 *Bootis* η			
Apl. 20	...	13 49 6·70	...	71 0 57·2	M
21	...	49 6·66	...	0 57·1	M
23	...	49 6·69	...	0 55·4	M
24	...	49 6·76	...	0 56·3	M
25	...	49 6·68	...	0 57·1	M
26	...	49 6·70	...	0 58·7	M
28	...	49 6·81	...	0 58·8	M
30	...	49 6·69	...	0 56·2	M
May 1	...	49 6·82	...	0 55·9	R
2	...	49 6·83	...	0 56·1	R
199		*Anon.*			
Apl. 11	8·5	13 50 24·49	...	142 5 16·9	M
12	8·5	50 24·52	...	5 19·9	M
13	8·5	50 24·54	...	5 20·4	M
14	8·5	50 24·56	...	5 20·3	M
16	8·5	50 24·46	...	5 20·6	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
184		*R. P. L.* 87.—*s.p.*							
Nov. 13	...	11	53	32·11	3	2	21	15·2	M
14	...		53	32·22	2		21	16·6	M
Dec. 6	..		53	29·48	3		21	14·1	R
7	...		53	29·93	3		21	14·6	R
185		8 *Virginis* π							
Apl. 3	...	11	54	52·47	...	82	43	58·5	M
4	...		54	52·41	...		44	0·7	M
5	...		54	52·49	...		43	59·8	M
6	...		54	52·53	..		44	1·8	M
7	...		54	52·59	...		43	59·9	M
9	...		54	52·69	...		43	59·6	M
10	...		54	52·72	...		43	59·6	M
11	...		54	52·68	...		43	59·5	M
12	...		54	52·65	...		43	59·8	M
13	...		54	52·66	...		44	1·3	M
186		*R. P. L.* 97.—*s.p.*							
Nov. 12	...	12	37	35·28	3	5	42	53·3	M
Dec. 6	...		37	33·56	3		42	51·8	R
7	...		37	34·10	3		42	51·0	R
187		*R. P. L.* 98.—*s.p.*							
Nov. 9	...	12	48	8·00	3	5	56	45·3	M
Dec. 29	...		48	7·96	3		56	44·8	R
188		*R. P. L.* 99.—*s.p.*							
Dec. 20	...	12	48	16·16	3	5	57	4·4	R
22	...		48	16·23	3		57	4·8	R
189		77 *Ursæ Majoris* ε							
Apl. 3	...	12	48	52·48	...	33	24	17·1	M
4	...		48	52·51	...		24	17·3	M
5	...		48	52·52	...		24	18·5	M
6	...		48	52·86	..		24	17·0	M
7	...		48	52·57	...		24	18·7	M

Number and Date.	Magnitude.	Mean Right Ascension 1883. h.	m.	s.	No. of Wires.	Mean Polar Distance 1883. °	′	″	Observer.
190		43 *Virginis* δ							
Apl. 9	...	12	49	42·57	...	85	57	56·7	M
10	...		49	42·68	...		57	57·6	M
11	...		49	42·66	..		57	58·4	M
12	...		49	42·71	...		57	57·6	M
13	...		49	42·66	..		57	57·5	M
14	...		49	42·69	...		57	56·9	M
16	...		49	42·62	...		57	57·3	M
17	...		49	42·60	...		57	57·8	M
18	...		49	42·64	...		57	58·7	M
19	...		49	42·64	...		57	57·7	M
20	...		49	42·68	...		57	56·4	M
21	...		49	42·66	...		57	57·6	M
23	...		49	42·65	...		57	56·0	M
24	...		49	42·58	...		57	55·2	M
25	...		49	42·67	...		57	56·9	M
26	...		49	42·58	...		57	55·1	M
28	...		49	42·55	...		57	58·3	M
30	...		49	42·64	...		57	57·6	M
May 1	...		49	42·64	...		57	57·0	R
2	...		49	42·63	...		57	58·1	R
191		47 *Virginis* ε							
Apl. 9	...	12	56	21·11	...	78	24	42·1	M
10	...		56	21·05	...		24	45·2	M
11	...		56	21·14	...		24	43·8	M
12	...		56	21·12	...		24	42·4	M
13	...		56	21·15	...		24	43·8	M
14	...		56	21·05	...		24	42·8	M
16	...		56	21·13	...		24	43·3	M
17	...		56	21·07	...		24	43·4	M
18	...		56	21·11	...		24	44·0	M
19	...		56	21·01	...		24	43·9	M
21	...		56	21·13	...		24	45·0	M
23	...		56	21·15	...		24	41·6	M
24	...		56	21·16	...		24	41·9	M
25	...		56	21·06	...		24	43·6	M
26	...		56	21·13	...		24	44·2	M
28	...		56	21·29	...		24	43·8	M
30	...		56	21·22	...		24	43·2	M
May 1	...		56	21·17	...		24	40·6	R
2	...		56	21·16	...		24	41·3	R
3	...		56	21·25	...		24	40·9	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
May 4	...	12 56 21·20	...	78 24 41·0	R
5	...	56 21·21	...	24 41·2	R
7	...	56 21·28	...	24 41·5	R
8	...	56 21·26	...	24 41·7	R
9	...	56 21·28	...	24 42·1	R
10	...	56 21·22	...	24 38·7	R
11	...	56 21·22	...	24 38·6	R
12	...	56 21·23	...	24 39·5	R
14	...	56 21·19	...	24 40·7	R
15	...	56 21·08	...	24 40·0	R
192	*R. P. L.* 100—*s.p.*				
Jan. 2	...	13 0 26·39	3	3 29 7·4	R
Nov. 13	...	0 26·89	3	29 5·8	M
Dec. 20	...	0 26·43	3	29 9·2	R
28	...	0 27·35	3	29 7·0	R
193	51 *Virginis* θ				
May 3	...	13 3 53·52	...	94 54 50·3	R
4	...	3 53·50	...	54 48·1	R
5	...	3 53·57	...	54 47·9	R
7	...	3 53·55	...	54 48·9	R
8	...	3 53·52	...	54 49·0	R
9	...	3 53·47	...	54 49·5	R
10	...	3 53·51	...	54 48·2	R
11	...	3 53·63	...	54 48·7	R
12	...	3 53·55	...	54 48·8	R
14	...	3 53·55	...	54 48·8	R
15	...	3 53·40	...	54 48·9	R
194	*R. P. L.* 101.—*s.p.*				
Nov. 12	...	13 7 6·31	3	1 43 20·6	M
195	79 *Virginis* ζ				
Apl. 16	...	13 28 44·04	..	89 59 53·4	M
17	...	28 44·06	...	59 51·3	M
18	...	28 44·04	...	59 53·1	M
19	...	28 44·03	...	59 53·0	M
20	...	28 44·04	...	59 51·8	M
21	...	28 44·11	...	59 53·4	M
23	...	28 44·08	..	59 50·8	M
24	...	28 44·07	...	59 51·1	M
25	...	28 44·15	...	59 52·4	M
26	...	28 44·14	...	59 52·0	M

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
196	4 *Bootis* τ				
Apl. 9	...	13 41 42·20	...	71 57 31·6	M
11	...	41 42·08	...	57 32·2	M
12	...	41 42·08	...	57 32·2	M
13	...	41 42·11	...	57 31·5	M
14	...	41 42·08	...	57 30·3	M
16	...	41 42·04	...	57 32·2	M
17	...	41 42·12	...	57 31·0	M
18	...	41 42·03	...	57 30·6	M
19	...	41 42·14	...	57 30·5	M
20	..	41 42·12	...	57 30·3	M
197	85 *Ursæ Majoris* η				
May 3	...	13 42 55·78	...	40 6 7·1	R
4	...	42 55·79	...	6 7·4	R
5	...	42 55·68	...	6 5·9	R
7	...	42 55·62	...	6 7·0	R
8	...	42 55·70	...	6 6·3	R
9	...	42 55·71	...	6 6·5	R
10	...	42 55·71	...	6 4·6	R
11	...	42 55·61	...	6 6·2	R
12	...	42 55·65	...	6 6·2	R
14	...	42 55·66	...	6 6·9	R
198	8 *Bootis* η				
Apl. 20	...	13 49 6·70	...	71 0 57·2	M
21	...	49 6·66	...	0 57·1	M
23	...	49 6·69	...	0 55·4	M
24	...	49 6·76	...	0 56·3	M
25	...	49 6·68	...	0 57·1	M
26	...	49 6·70	...	0 58·7	M
28	...	49 6·81	...	0 58·8	M
30	...	49 6·69	...	0 56·2	M
May 1	...	49 6·82	...	0 55·9	R
2	...	49 6·83	...	0 56·1	R
199	*Anon.*				
Apl. 11	8·5	13 50 24·49	...	142 5 16·9	M
12	8·5	50 24·52	...	5 19·9	M
13	8·5	50 24·54	...	5 20·4	M
14	8·5	50 24·56	...	5 20·3	M
16	8·5	50 24·46	...	5 20·6	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
200		*R. P. L.* 108.—*s.p.*			
Dec. 28	...	14 1 29·77	3	3 40 55·6	R
201		*Taylor* 6609.			
Apl. 25	...	14 5 40·88	...	131 5 32·9	M
26	...	5 40·72	...	5 34·2	M
30	...	5 40·71	...	5 32·9	M
May 1	...	5 40·93	...	5 31·5	R
2	...	5 40 93	...	5 32·0	R
202		*Stone* 7816.—*2nd.*			
Apl. 26	...	14 12 49·00	...	132 31 12·4	M
30	...	12 48·77	...	31 13·7	M
May 1	...	12 48·99	...	31 12·9	R
2	...	12 49·00	...	31 13·5	R
3	...	12 49·02	...	31 13·3	R
203		*Anon.*			
Apl. 23	...	14 13 8·18	...	151 0 41·2	M
204		*Stone* 7826.			
Apl. 20	...	14 14 9·26	...	156 6 31·2	M
21	7·0	14 9·45	...	6 32·4	M
205		*Anon.*			
May 2	7·0	14 21 19·48	...	150 19 33·0	R
4	7·0	21 19·59	...	19 32·5	R
7	7·0	21 19·75	...	19 32·0	R
206		*Anon.*			
Apl. 21	8·7	14 21 30·59	...	150 17 36·0	M
24	8·7	21 30·46	...	17 33·6	M
May 3	9·0	21 30·34	...	17 32·5	R
5	9·0	21 30·44	...	17 31·3	R
9	9·0	21 30·40	...	17 32·8	R
207		*Stone* 7897.			
Apl. 19	...	14 23 7·93	...	129 57 14·7	M
20	...	23 7·93	...	57 14·3	M
208		*Stone* 7947.			
Apl. 20	...	14 29 31·34	...	157 41 41·2	M
21	7·0	29 31·29	...	41 42·0	M
209		*Taylor* 6811.			
Apl. 25	7·0	14 30 6·62	...	132 36 6·2	M
26	7·0	30 6·65	...	36 6·9	M
30	...	30 6·60	...	36 5·1	M
May 1	7·0	30 6·56	...	36 5·0	R
2	7·0	30 6·55	...	36 4·0	R
210		*Stone* 7969.			
May 4	7·5	14 32 17·08	...	129 3 27·4	R
10	7·5	32 17·11	...	3 26·8	R
211		*Anon.*			
May 5	7·0	14 35 28·51	...	151 25 42·9	R
212		*Anon.*			
Apl. 19	...	14 38 46·84	...	128 6 32·4	M
213		*Taylor* 6891.			
Apl. 25	7·0	14 39 56·14	...	133 3 53·0	M
26	7·0	39 56·22	...	3 49·7	M
30	...	39 55·92	...	3 50·6	M
May 1	7·0	39 56·07	...	3 49·6	R
2	7·0	39 56·03	...	3 51·0	R
214		*Anon.*			
May 8	7·5	14 42 47·95	...	126 54 24·0	R
9	7·5	42 47·95	...	54 24·2	R
10	7·5	42 48·05	...	54 24·5	R
11	7·5	42 48·05	...	54 24·2	R
12	7·5	42 48·20	...	54 24·9	R
215		*Taylor* 6925.			
Apl. 28	...	14 45 30·81	...	127 19 12·8	M
30	...	45 30·66	...	19 14·3	M
May 1	...	45 30·67	...	19 13·8	R
2	...	45 30·66	...	19 14·8	R
3	...	45 30·80	...	19 14·4	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
216		*Anon.*			
Apl. 19	...	14 47 5·45	...	131 33 52·9	M
21	7·5	47 5·53	...	33 53·3	M
24	7·5	47 5·47	...	33 52·6	M
217		*Anon.*			
Apl. 20	...	14 48 10·24	...	126 41 5·0	M
25	7·5	48 10·31	...	41 5·8	M
26	7·5	48 10·13	...	41 6·2	M
May 4	7·5	48 10·34	...	41 2·7	R
218		*7 Ursæ Minoris β, Var.* 1.			
May 9	...	14 51 3·44	...	15 21 58·7	R
10	...	51 3·42	...	21 58·6	R
11	...	51 3·50	...	21 58·7	R
12	...	51 3·29	...	21 56·7	R
14	...	51 3·42	...	21 56·2	R
219		*Stone* 8165.			
May 2	7·0	14 52 35·28	...	129 19 46·3	R
3	7·0	52 35·24	...	19 45·8	R
4	7·0	52 35·16	...	19 45·7	R
7	7·0	52 35·26	...	19 44·8	R
8	7·0	52 35·15	...	19 44·7	R
220		*R. P. L.* 110.			
May 5	...	14 52 52·85	3	3 34 3·5	R
		R. P. L. 110 —*s.p.*			
Jan. 12	...	14 52 52·78	3	3 34 7·9	M
16	...	52 54·46	4	34 7·1	M
17	...	52 54·27	3	34 4·5	M
221		*Anon.*			
Apl. 19	...	14 53 29·66	...	131 49 19·8	M
20	...	53 29·61	...	49 18·0	M
21	8·0	53 29·58	...	49 19·5	M

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
222		*Taylor* 7001.			
Apl. 25	...	14 56 15·36	...	125 28 53·9	M
26	...	56 15·55	...	28 54·9	M
28	...	56 15·60	...	28 53·3	M
30	...	56 15·44	...	28 54·0	M
May 1	..	56 15·66	...	28 55·1	R
223		*Taylor* 7027.			
Apl. 19	...	14 58 53·17	...	125 48 33·1	M
224		*27 Libræ β*			
Apl. 30	...	15 10 42·72	...	98 57 4·0	M
May 1	...	10 42·67	...	57 0·8	R
2	...	10 42·65	...	57 1·5	R
3	...	10 42·60	...	57 1·5	R
5	...	10 42·69	...	56 59·8	R
7	...	10 42·69	...	56 58·0	R
8	...	10 42·69	...	57 0·3	R
9	...	10 42·67	...	57 0·7	R
10	...	10 42·75	...	57 0·5	R
11	...	10 42·67	...	56 58·7	R
225		*R. P. L.* 114—*s.p.*			
Jan. 15	...	15 15 21·11	3	2 19 12·0	M
16	...	15 18·75	3	19 6·9	M
17	...	15 19·82	3	19 7·2	M
226		*Anon.*			
May 28	9·0	15 37 31·17	...	155 8 44·9	R
29	9·0	37 31·02	...	8 46·4	R
227		*24 Serpentis a*			
May 12	...	15 38 30·39	...	83 12 17·9	R
14	...	38 30·41	...	12 18·5	R
15	...	38 30·39	...	12 18·8	R
18	...	38 30·26	...	12 19·2	R
19	...	38 30·34	...	12 18·1	R
21	...	38 30·37	...	12 18·8	R
22	...	38 30·28	...	12 19·4	R
24	...	38 30·28	...	12 19·5	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
May 25	...	15 38 30·29	...	83 12 19·7	R
28	...	38 30·28	...	12 18·8	R
31	...	38 30·31	...	12 18·7	R
June 1	...	38 30·34	...	12 18·9	R
2	...	38 30·30	...	12 17·5	R
8	...	38 30·29	...	12 18·7	M
228	*37 Serpentis* ϵ				
May 15	...	15 44 59·17	...	85 10 6·7	R
18	..	44 59·02	..	10 8·2	R
19	...	44 59·01	...	10 7·9	R
21	...	44 59·04	...	10 8·1	R
22	...	44 59·00	...	10 7·6	R
23	...	44 59·01	...	10 7·6	R
24	...	44 59·01	...	10 8·0	R
25	...	44 59·04	...	10 8·8	R
28	...	44 59·05	...	10 7·9	R
29	...	44 58·99	...	10 6·6	R
229	*Anon.*				
June 2	...	15 46 27·92	...	130 46 29·0	R
8	...	46 27·85	4	46 30·0	M
20	...	46 27·79	...	46 29·3	M
26	...	46 28·05	...	46 31·6	M
230	*R. P. L.* 116.				
May 5	...	16 0 47·61	3	4 21 53·3	R
7	...	0 48·26	3	21 53·6	R
8	...	0 47·97	3	21 53·2	R
9	...	0 47·70	3	21 53·2	R
12	...	0 47·85	3	21 53·9	R
	R. P. L. 116—*s.p.*				
Jan. 18	...	16 0 47·16	3	4 21 53·3	M
20	...	0 47·07	3	21 54·9	M
22	...	0 47·40	3	21 56·9	M
27	...	0 47·08	3	21 53·4	M
29	...	0 47·32	3	21 55·8	M
30	...	0 47·26	3	21 54·0	M
231	*R. P. L.* 117.				
May 18	...	16 3 14·67	3	6 2 43·2	R
19	...	3 14·88	3	2 43·0	R
23	...	3 14·73	3	2 44·4	R
	R. P. L. 117—*s.p.*				
Jan. 1	...	16 3 13·67	3	6 2 44·5	R
4	...	3 15·31	3	2 44·1	R
5	...	3 15·30	3	2 42·2	R
12	...	3 15·27	3	2 41·2	M
15	...	3 14·60	3	2 46·0	M
16	...	3 14·24	3	2 43·2	M
17	...	3 14·56	3	2 37·1	M
19	...	3 14·48	3	2 43·8	M
24	...	3 14·83	3	2 40·1	M
25	...	3 14·42	3	2 41·6	M
232	*Anon.*				
May 10	7·0	16 5 1·46	...	133 46 12·6	R
14	7·0	5 1·63	...	46 11·9	R
233	*Anon.*				
May 11	8·5	16 6 5·40	...	125 29 44·8	R
12	8·5	6 5·47	...	29 45·2	R
234	*Stone* 8832.				
May 5	...	16 7 57·02	...	135 5 30·8	R
7	...	7 57·01	4	5 30·6	R
235	*Anon.*				
May 18	8·0	16 8 14·40	...	135 14 55·5	R
19	8·0	8 14·38	...	14 55·7	R
21	8·0	8 14·32	...	14 55·4	R
22	8·0	8 14·28	4	14 55·7	R
236	*Stone* 8853.				
May 8	7·0	16 10 37·37	...	124 37 29·3	R
9	7·0	10 37·43	...	37 29·4	R
10	7·0	10 37·61	...	37 29·3	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
237		19 *Ursæ Minoris.*			
May 15	...	16 14 9·98	...	13 49 41·2	R
18	...	14 10·05	...	49 43·3	R
238		*Stone* 8892.			
May 5	6·5	16 14 44·75	...	152 51 1·7	R
9	6·3	14 44·48	5	51 2·1	R
10	6·3	14 44·57	...	51 1·2	R
11	6·3	14 44·61	..	51 0·5	R
239		20 *Herculis* γ			
May 23	...	16 16 45·47	...	70 34 14·4	R
25	...	16 45·48	...	34 16·0	R
28	...	16 45·48	...	34 15·6	R
29	...	16 45·53	...	34 15·0	R
30	...	16 45·46	...	34 14·7	R
31	...	16 45·45	...	34 15·4	R
June 1	...	16 45·48	...	34 15·7	R
2	...	16 45·50	...	34 14·2	R
8	...	16 45·60	...	34 16·1	M
11	...	16 45·48	...	34 16·2	M
240		*Anon.*			
May 12	8·5	16 18 6·06	...	130 57 19·0	R
14	8·5	18 6·13	...	57 18·6	R
19	8·5	18 6·20	...	57 20·0	R
24	8·5	18 6·16	...	57 19·8	R
241		21 *Ursæ Minoris* η			
May 7	...	16 20 56·06	...	13 58 29·0	R
8	...	20 56·08	...	58 29·5	R
21	...	20 56·04	...	58 32·2	R
23	...	20 56·21	...	58 32·7	R
242		*Anon.*			
May 11	8·0	16 23 32·65	...	136 25 16·1	R
12	8·0	23 32·69	...	25 17·0	R
14	8·0	23 32·67	...	25 17·1	R

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
243		*Anon.*			
May 5	7·5	16 23 38·69	...	128 44 44·1	R
244		27 *Herculis* β			
May 24	...	16 25 11·32	...	68 15 19·0	R
245		*Stone* 8976.			
May 10	7·0	16 25 25·41	...	123 16 48·1	R
18	7·0	25 25·31	...	16 50·5	R
19	7·0	25 25·24	...	16 50·3	R
246		*Anon.*			
May 14	9·5	16 29 2·64	...	125 32 35·8	R
15	9·5	29 2·62	...	32 36·2	R
25	9·5	29 2·64	...	32 35·9	R
247		η^1 *Trianguli Australis.*			
May 11	...	16 29 19·55	...	158 3 35·1	R
12	...	29 19·57	...	3 37·0	R
248		*Stone* 9014.			
May 5	7·0	16 30 33·44	...	128 54 48·0	R
249		13 *Ophiuchi* ζ			
May 18	...	16 30 42·98	...	100 19 43·6	R
19	...	30 42·95	...	19 44·0	R
21	...	30 42·96	...	19 44·0	R
22	...	30 43·03	...	19 44·2	R
23	...	30 43·07	...	19 44·4	R
24	...	30 43·00	...	19 44·2	R
28	...	30 43·02	...	19 43·9	R
29	...	30 43·00	...	19 44·1	R
30	...	30 42·98	...	19 44·2	R
31	...	30 42·98	...	19 44·6	R
June 2	...	30 43·03	...	19 42·3	R
7	...	30 42·99	...	19 44·0	R
8	...	30 43·00	...	19 44·4	M
11	...	30 43·05	...	19 43·8	M
14	...	30 42·94	...	19 43·5	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
June 15	...	16 30 43·03	...	100 19 42·6	M
19	...	30 43·02	...	19 44·9	M
20	...	30 43·02	...	19 44·5	M
22	...	30 42·90	...	19 44·4	M
26	...	30 42·98	...	19 44·6	M
250	*Lacaille* 6881.				
May 9	...	16 31 31·80	...	157 12 5·6	R
10	...	31 31·80	...	12 4·3	R
251	*Anon.*				
May 14	7·5	16 36 1·13	...	128 6 36·2	R
15	7·5	36 1·11	...	6 36·4	R
18	7·5	36 1·18	...	6 36·2	R
19	7·5	36 1·17	...	6 36·2	R
21	7·5	36 1·10	...	6 36·5	R
252	*Anon.*				
May 8	8·0	16 38 51·76	...	125 34 31·5	R
9	8·0	38 51·78	...	34 35·8	R
253	*Anon.*				
May 25	9·5	16 41 15·36	...	126 18 19·8	R
28	9·5	41 15·35	...	13 21·5	R
29	9·5	41 15·33	...	18 21·1	R
30	9·5	41 15·31	...	18 22·2	R
254	*Anon.*				
May 10	7·0	16 41 37·68	...	132 53 52·9	R
255	*Anon.*				
May 11	8·0	16 42 29·39	...	127 50 30·5	R
12	8·0	42 29·48	...	50 30·8	R
14	8·0	42 29·61	...	50 31·5	R
256	*Anon.*				
May 19	7·5	16 44 2·03	...	129 2 39·3	R
21	7·5	44 1·92	...	2 39·8	R
22	7·5	44 1·88	...	2 39·4	R
23	7·5	44 2·13	...	2 39·9	R
24	7·5	44 2·14	...	2 38·8	R
257	*Taylor* 7793.				
May 8	7·0	16 44 42·16	...	127 23 47·9	R
258	*Anon.*				
May 15	9·5	16 49 0·75	...	132 12 58·1	R
18	9·5	49 0·76	...	12 58·0	R
259	*Anon.*				
May 5	8·5	16 50 20·26	...	128 26 15·6	R
9	8·5	50 20·15	...	26 18·3	R
11	8·5	50 20·12	...	26 17·6	R
14	8·5	50 20·17	...	26 19·0	R
260	*Anon.*				
May 14	8·0	16 56 52·99	...	129 52 39·5	R
15	8·0	56 52·92	...	52 39·7	R
18	8·0	56 52·88	...	52 39·8	R
19	8·0	56 52·87	...	52 39·1	R
21	8·0	56 52·92	...	52 40·8	R
261	22 *Ursæ Minoris* ϵ				
May 12	...	16 58 0·05	4	7 46 16·6	R
June 15	...	57 59·69	3	46 17·1	M
262	*Anon.*				
May 5	9·0	16 59 23·33	...	132 35 35·5	R
263	*R. P. L.* 118.				
Aug. 11	...	17 1 59·60	3	5 8 35·5	R
13	...	1 59·25	3	8 33·9	R
14	...	1 59·65	3	8 34·6	R
16	...	1 58·47	3	8 35·3	R
18	...	1 58·52	3	8 36·1	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
		R. P. L. 118—*s.p.*			
Jan. 2	...	17 2 0·00	3	5 8 34·8	R
3	...	2 0·22	3	8 34·1	R
8	...	1 59·89	3	8 34·0	M
9	...	2 0·23	3	8 34·4	M
19	...	1 59·48	3	8 36·5	M
24	...	1 59·71	3	8 32·3	M
29	...	1 59·94	3	8 37·9	M
Feb. 1	...	1 59·39	3	8 36·0	R
2	...	1 59·13	3	8 37·8	R
7	...	2 0·03	3	8 35·9	M
264		*Stone* 9338.			
May 21	7·0	17 2 48·40	...	131 17 23·9	R
22	7·0	2 48·33	...	17 24·2	R
24	7·0	2 48·34	...	17 24·5	R
25	7·0	2 48·36	...	17 24·2	R
29	7·0	2 48·14	...	17 22·4	R
265		*Anon.*			
May 15	7·5	17 2 51·11	...	131 32 55·1	R
30	7·5	2 50·91	...	32 56·9	R
31	7·5	2 50·87	...	32 57·4	R
June 1	7·5	2 50·85	...	32 57·0	R
2	7·5	2 50·85	...	32 58·9	R
266		35 *Ophiuchi* η			
June 7	...	17 3 40·08	...	105 34 41·0	R
9	...	3 40·05	...	34 42·6	M
11	...	3 39·95	...	34 45·2	M
14	...	3 40·13	...	34 45·9	M
19	...	3 40·03	...	34 45·0	M
20	...	3 40·02	...	34 43·7	M
22	...	3 39·95	...	34 44·3	M
26	...	3 40·09	...	34 43·9	M
July 3	...	3 40·11	...	34 42·4	R
4	...	3 40·10	...	34 43·1	R
17	...	3 40·08	...	34 44·2	R
18	...	3 40·02	...	34 43·0	R
20	...	3 40·02	...	34 42·6	R
24	...	3 40·06	...	34 42·6	R
July 28	...	17 3 40·09	...	105 34 42·5	R
30	...	3 40·13	...	34 43·5	R
31	...	3 40·12	...	34 43·3	R
Aug. 2	...	3 40·11	...	34 42·9	R
3	...	3 40·09	...	34 43·4	R
4	...	3 40·11	...	34 43·6	R
267		*Anon.*			
May 12	...	17 6 15·90	...	131 19 56·9	R
268		*Stone* 9389.			
May 14	...	17 8 59·79	...	129 17 47·7	R
15	...	8 59·80	...	17 48·2	R
269		*Anon.*			
Aug. 9	8·0	17 9 34·36	...	128 31 56·1	R
10	8·0	9 34·35	...	31 56·1	R
11	8·0	9 34·20	...	31 54·7	R
14	8·0	9 34·20	...	31 55·3	R
16	9·0	9 34·22	...	31 52·5	R
270		*Anon.*			
June 19	9·0	17 10 16·79	...	128 20 56·4	M
20	9·0	10 16·72	...	20 55·8	M
July 3	9·0	10 16·60	...	20 55·0	R
4	9·0	10 16·58	...	20 55·9	R
17	9·0	10 16·73	...	20 53·5	R
271		*Anon.*			
July 28	8·0	17 10 47·27	...	125 57 30·9	R
30	8·0	10 47·21	...	57 33·7	R
31	8·0	10 47·14	...	57 32·5	R
Aug. 2	8·0	10 47·13	...	57 31·5	R
272		*Stone* 9428.			
May 18	6·0	17 12 18·41	...	155 35 2·3	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
273		*Anon.*			
June 7	9·0	17 18 17·89	...	129 22 49·1	R
8	9·0	18 18·14	...	22 47·0	M
9	9·0	18 18·05	...	22 47·8	M
14	9·0	18 18·06	...	22 50·9	M
274		*Anon.*			
May 19	7·0	17 14 38·81	...	131 58 17·5	R
22	7·5	14 38·72	...	58 17·8	R
25	7·5	14 38·77	...	58 17·5	R
28	7·5	14 38·75	...	58 18·5	R
275		*Stone* 9448.—*2nd.*			
May 15	7·0	17 14 41·15	...	128 5 8·7	R
21	7·0	14 41·18	...	5 9·2	R
23	7·0	14 41·37	...	5 9·0	R
24	7·0	14 41·41	...	5 7·3	R
276		*Anon.*			
Aug. 4	8·5	17 15 31·06	...	145 52 52·0	R
8	8·5	15 30·97	...	52 54·8	R
10	8·5	15 31·09	...	52 51·5	R
11	8·5	15 31·05	...	52 51·4	R
14	8·5	15 30·96	...	52 50·6	R
277		*Anon.*			
June 14	9·0	17 17 18·91	5	138 28 58·3	M
15	9·5	17 18·64	...	28 54·3	M
20	9·0	17 18·61	...	28 54·5	M
July 3	9·0	17 18·89	...	28 53·8	R
4	9·0	17 18·79	...	28 55·1	R
278		*Stone* 9479.			
June 11	...	17 17 27·71	...	138 30 21·9	M
22	...	17 27·44	...	30 21·7	M
July 18	7·0	17 27·67	...	30 22·7	R
20	7·0	17 27·66	...	30 22·4	R
24	7·0	17 27·68	4	30 21·4	R

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
279		49 *Ophiuchi* σ			
May 22	...	17 20 42·60	...	85 45 24·8	R
24	...	20 42·60	...	45 24·9	R
25	...	20 42·63	...	45 24·7	R
29	...	20 42·55	...	45 24·6	R
30	...	20 42·60	...	45 25·2	R
31	...	20 42·62	...	45 24·9	R
June 1	...	20 42·55	...	45 25·5	R
2	...	20 42·52	...	45 24·8	R
9	...	20 42·54	...	45 25·1	M
19	...	20 42·55	...	45 26·5	M
280		*Anon.*			
July 28	8·0	17 21 46·30	...	127 10 44·1	R
30	8·0	21 46·19	...	10 44·9	R
31	8·0	21 46·12	...	10 47·0	R
Aug. 2	8·0	21 46·15	...	10 45·4	R
3	8·0	21 46·19	...	10 45·0	R
281		*a Arœ.*			
June 20	...	17 22 47·85	5	139 46 53·4	M
July 20	...	22 47·83	...	46 53·4	R
Aug. 10	...	22 47·67	...	46 53·0	R
11	...	22 47·76	...	46 52·4	R
14	...	22 47·60	...	46 52·8	R
282		34 *Scorpii* υ			
Aug. 13	...	17 22 48·40	...	127 12 4·1	R
16	...	22 48·28	...	12 3·4	R
18	...	22 48·23	...	12 3·8	R
283		*Stone* 9566.			
June 22	7·0	17 26 10·80	...	130 26 48·9	M
July 3	7·0	26 10·89	...	26 46·9	R
4	7·0	26 10·68	...	26 47·6	R
17	7·0	26 10·85	...	26 47·4	R
18	7·0	26 10·89	...	26 48·9	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
284		*Anon.*			
May 28	7·0	17 28 7·56	...	134 29 10·4	R
285		*Stone* 9578.			
Aug. 9	7·0	17 28 9·84	...	146 44 38·7	R
10	7·0	28 9·86	...	44 38·5	R
Sep. 4	...	28 9·71	...	44 38·8	M
286		*Brisbane* 6132.			
May 31	8·0	17 28 38·23	...	135 4 47·9	R
287		*θ Scorpii.*			
June 2	...	17 28 54·64	...	132 55 14·3	R
8	...	28 54·63	...	55 17·7	M
9	...	28 54·56	...	55 17·8	M
11	...	28 54·75	5	55 18·1	M
15	...	28 54·55	...	55 16·7	M
288		*Anon.*			
July 28	8·0	17 29 9·13	...	128 42 30·9	R
30	8·0	29 8·89	...	42 31·9	R
31	8·0	29 8·83	...	42 31·6	R
Aug. 2	8·0	29 8·95	...	42 30·9	R
4	8·0	29 8·78	...	42 30·8	R
289		*Anon.*			
May 22	7·0	17 31 44·52	...	128 17 58·1	R
23	7·0	31 44·59	...	17 57·6	R
24	7·0	31 44·68	...	17 57·9	R
25	7·0	31 44·64	...	17 58·1	R
29	7·0	31 44·45	...	17 57·5	R
290		*R. P. L.* 120.			
May 18	...	17 31 46·58	3	5 17 27·0	R
19	...	31 46·69	3	17 24·7	R
28	...	31 46·67	3	17 24·6	R
June 1	...	31 46·33	3	17 26·1	R
Aug. 25	...	31 46·63	3	17 26·6	R
R. P. L. 120—*s.p.*					
Jan. 18	...	17 31 46·53	3	5 17 27·0	M
19	...	31 47·29	3	17 25·6	M
27	...	31 46·77	3	17 24·2	M
30	...	31 46·41	3	17 27·9	M
31	...	31 46·51	3	17 26·1	M
Feb. 8	...	31 46·63	3	17 27·3	R
9	...	31 46·43	3	17 25·2	R
10	...	31 46·70	3	17 25·1	R
12	...	31 46·48	3	17 26·3	R
14	...	31 46·60	3	17 25·2	R
291		*Anon.*			
June 20	7·0	17 32 56·29	...	130 1 35·4	M
July 4	7·0	32 56·02	...	1 35·6	R
18	7·0	32 56·17	...	1 36·5	R
20	7·0	32 56·11	...	1 36·1	R
24	7·0	32 56·28	4	1 35·6	R
292		*Brisbane* 6160.			
May 21	8·0	17 33 20·24	...	134 43 12·5	R
293		*Anon.*			
Aug. 9	7·5	17 35 28·26	...	144 4 40·3	R
10	7·5	35 28·27	...	4 40·7	R
11	7·5	35 28·27	...	4 40·2	R
14	7·5	35 28·14	...	4 40·3	R
18	7·5	35 28·30	...	4 39·3	R
294		60 *Ophiuchi β*			
May 18	...	17 37 41·55	...	85 22 56·5	R
19	...	37 41·52	...	22 56·7	R
21	...	37 41·47	...	22 57·0	R
23	...	37 41·48	...	22 57·7	R
30	...	37 41·51	...	22 57·0	R
June 7	...	37 41·47	...	22 55·6	R
9	...	37 41·52	...	22 56·3	M
14	...	37 41·43	...	22 58·2	M
15	...	37 41·36	...	22 56·2	M
22	...	37 41·54	...	22 58·4	M
26	...	37 41·45	...	22 58·8	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
July 3	...	17 37 41·42	...	85 22 56·7	R
4	...	37 41·44	...	22 57·3	R
17	...	37 41·50	...	22 59·9	R
18	...	37 41·45	...	22 57·8	R
20	...	37 41·49	..	22 57·0	R
24	...	37 41·53	...	22 55·8	R
28	...	37 41·38	...	22 56·8	R
30	...	37 41·49	...	22 58·5	R
31	...	37 41·43	...	22 58·9	R
295		*Anon.*			
June 8	8·5	17 39 34·85	...	128 18 49·3	M
11	...	39 34·85	5	18 48·8	M
Aug. 2	8·5	39 34·58	...	18 47·9	R
4	8·5	39 34·61	...	18 48·0	R
296		*Anon.*			
June 20	8·5	17 40 23·50	4	128 18 52·4	M
Aug. 8	8·5	40 23·42	...	18 56·4	R
9	8·5	40 23·31	...	18 53·3	R
10	8·5	40 23·23	...	18 52·8	R
11	8·5	40 23·26	...	18 52·2	R
297		*Anon.*			
Aug. 18	8·0	17 42 51·21	...	143 28 18·3	R
Sep. 4	...	42 51·34	...	28 17·2	M
298		*Anon.*			
May 19	7·5	17 44 10·64	...	129 6 59·0	R
22	7·5	44 10·54	...	6 58·8	R
23	7·5	44 10·81	...	6 59·5	R
24	7·5	44 10·70	...	6 58·0	R
25	7·5	44 10·65	...	6 59·9	R
299		*Taylor* 8243.			
May 29	...	17 44 30·77	...	131 57 30·3	R
June 1	...	44 30·68	...	57 30·1	R
7	...	44 30·47	...	57 31·1	R
9	...	44 30·73	...	57 26·8	M
11	...	44 31·07	...	57 30·9	M

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
300		*Anon.*			
May 28	9·5	17 45 11·77	...	131 58 3·5	R
30	9·5	45 11·64	...	58 3·7	R
June 14	9·5	45 11·80	5	58 1·2	M
15	9·5	45 11·83	...	58 3·5	M
22	...	45 11·80	...	58 2·7	M
301		*Anon.*			
July 28	9·0	17 45 40·00	...	129 13 58·5	R
30	9·0	45 39·84	...	13 59·8	R
31	9·0	45 39·77	3	14 0·6	R
Aug. 11	9·0	45 40·01	...	13 59·1	R
13	9·0	45 39·93	...	13 58·7	R
302		*Anon.*			
May 18	8·0	17 50 28·62	...	151 21 14·1	R
19	8·0	50 28·57	...	21 14·2	R
23	8·0	50 28·62	...	21 13·5	R
303		*Anon.*			
June 14	8·0	17 51 51·27	...	129 3 3·9	M
15	8·0	51 51·29	...	3 3·1	M
22	7·0	51 51·14	...	3 4·0	M
July 3	8·0	51 51·37	...	3 2·9	R
4	8·0	51 51·28	...	3 4·1	R
304		*Anon.*			
May 22	7·0	17 52 15·64	...	127 23 50·8	R
24	7·0	52 15·87	...	23 50·9	R
25	7·0	52 15·86	...	23 51·0	R
28	7·0	52 15·74	...	23 50·9	R
29	7·0	52 15·64	...	23 51·3	R
305		*Anon.*			
May 30	9·0	17 52 34·35	...	137 2 29·2	R
June 1	9·0	52 34·27	...	2 29·0	R
7	9·0	52 34·02	...	2 27·6	R
8	9·0	52 34·27	...	2 30·6	M
11	...	52 34·56	...	2 29·6	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
306		*O. A. S.* 17446.			
Aug. 8	...	17 52 45·65	...	119 53 1·3	R
9	...	52 45·56	...	52 58·0	R
10	...	52 45·50	...	52 58·7	R
11	...	52 45·48	...	52 57·4	R
13	...	52 45·59	...	52 57·3	R
307		*O. A. S.* 17452.			
July 24	...	17 52 58·59	...	119 48 52·3	R
28	...	52 58·44	...	48 54·3	R
30	...	52 58·39	...	48 55·5	R
Aug. 2	...	52 58·42	..	48 53·0	R
3	...	52 58·45	4	48 54·1	R
308		*Anon.*			
May 19	8·9	17 56 36·54	...	128 56 59·8	R
309		*Stone* 9840.			
June 1	7·0	17 57 33·57	...	127 28 31·7	R
15	7·0	57 33·59	...	28 29·6	M
20	...	57 33·64	5	28 30·8	M
July 4	7·0	57 33·74	...	28 31·6	R
28	7·0	57 33·59	...	28 30·9	R
310		*Anon.*			
May 29	7·5	17 58 5·20	...	127 26 19·7	R
June 7	7·5	58 5·25	...	26 19·2	R
9	...	58 5·53	...	26 21·3	M
14	7·0	58 5·34	...	26 21·0	M
22	7·5	58 5·31	...	26 19·8	M
311		*Stone* 9849.			
May 30	7·0	17 58 13·11	...	127 30 7·1	R
June 11	...	58 13·37	5	30 7·4	M
July 30	7·0	58 13·28	...	30 7·5	R
31	7·0	58 13·26	...	30 7·3	R
Aug. 2	7·0	58 13·18	...	30 6·7	R

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
312		*Anon.*			
May 18	...	17 59 22·53	..	128 13 9·7	R
23	...	59 22·59	...	13 8·5	R
24	...	59 22·56	...	13 7·2	R
25	...	59 22·54	...	13 8·6	R
28	...	59 22·64	...	13 9·3	R
313		*Anon.*			
Aug. 8	8·0	17 59 31·89	...	129 31 45·5	R
9	8·0	59 31·73	...	31 42·1	R
11	8·0	59 31·50	...	31 42·3	R
13	8·0	59 31·65	...	31 42·6	R
14	8·0	59 31·66	...	31 42·2	R
314		*Anon.*			
Aug. 14	7·5	18 3 21·93	...	128 12 57·1	R
16	7·5	3 22·10	...	12 57·6	R
18	7·5	3 22·16	...	12 57·9	R
25	7·5	3 22·20	...	12 57·9	R
Sep. 15	...	3 22·23	...	12 58·7	M
315		*Anon.*			
June 15	9·7	18 5 50·73	...	133 7 10·8	M
316		*Stone* 9922.			
May 19	...	18 5 52·94	...	133 10 51·8	R
22	...	5 52·82	...	10 51·4	R
23	...	5 52·84	...	10 51·3	R
24	...	5 52·77	...	10 51·6	R
July 4	...	5 52·88	...	10 52·8	R
18	...	5 52·99	...	10 52·3	R
28	...	5 53·00	...	10 51·8	R
317		*Stone* 9924.			
May 25	7·5	18 6 0·68	...	131 56 15·1	R
28	7·0	6 0·80	...	56 16·1	R
29	7·0	6 0·81	...	56 15·7	R
30	7·0	6 0·82	...	56 16·7	R
June 1	7·0	6 0·76	...	56 16·2	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
318		*Anon.*			
July 30	7·5	18 6 41·76	...	126 55 43·9	R
Aug. 2	7·5	6 41·54	...	55 44·7	R
8	7·5	6 41·85	...	55 47·7	R
9	7·5	6 41·70	...	55 44·1	R
10	7·5	6 41·65	...	55 44·8	R
319		*Anon.*			
June 8	9·0	18 9 5·03	5	131 16 18·0	M
22	9·0	9 5·01	...	16 18·6	M
Aug. 11	8·5	9 4·78	...	16 17·3	R
13	8·5	9 4·98	...	16 15·9	R
320		23 *Ursæ Minoris* δ			
June 7	...	18 10 3·96	3	3 23 24·2	R
Aug. 14	...	10 2·43	3	23 22·8	R
321		*Anon.*			
May 23	8·0	18 10 21·14	...	126 23 38·6	R
322		*Anon.*			
May 28	8·0	18 13 25·60	...	136 5 3·5	R
29	8·0	13 25·67	...	5 3·8	R
30	8·0	13 25·60	...	5 4·1	R
June 1	8·0	13 25·52	...	5 3·1	R
9	...	13 25·72	...	5 0·6	M
323		*Anon.*			
May 25	8·0	18 14 12·57	...	127 48 38·4	R
324		*Taylor* 8452.			
Aug. 18	...	18 14 14·57	...	128 42 29·2	R
25	...	14 14·42	...	42 29·3	R
Sep. 4	...	14 14·50	...	42 28·4	M
11	...	14 14·43	...	42 29·5	M
13	...	14 14·73	3	42 29·0	M
325		58 *Serpentis* η			
June 11	...	18 15 15·38	...	92 55 42·6	M
15	..	15 15·36	...	55 41·4	M
20	...	15 15·48	...	55 40·5	M
22	...	15 15·46	...	55 42·5	M
July 3	...	15 15·32	...	55 40·5	R
4	...	15 15·18	...	55 41·6	R
17	...	15 15·23	4	55 40·4	R
18	...	15 15·28	...	55 41·9	R
20	...	15 15·29	...	55 41·7	R
24	..	15 15·32	...	55 41·2	R
28	...	15 15·31	...	55 42·5	R
30	...	15 15·28	...	55 40·2	R
31	...	15 15·31	...	55 40·0	R
Aug. 2	...	15 15·26	...	55 41·1	R
3	...	15 15·25	...	55 41·5	R
4	...	15 15·23	...	55 42·1	R
8	...	15 15·28	...	55 40·2	R
9	...	15 15·28	...	55 41·6	R
10	...	15 15·27	...	55 41·6	R
11	...	15 15·31	...	55 41·9	R
326		*Anon.*			
Aug. 16	7·0	18 15 22·20	...	128 47 32·3	R
Sep. 5	...	15 22·38	6	47 28·0	M
15	...	15 22·25	...	47 30·2	M
17	...	15 22·39	6	47 28·8	M
327		*Anon.*			
May 19	7·0	18 15 42·50	...	138 50 53·0	R
22	7·0	15 42·38	...	50 53·4	R
23	7·0	15 42·38	...	50 53·0	R
24	7·0	15 42·29	...	50 53·2	R
328		*Anon.*			
May 18	8·0	18 16 32·65	...	127 17 6·3	R
329		22 *Sagittarii* λ			
June 8	...	18 20 44·96	...	115 29 3·1	M
July 4	...	20 45·08	...	29 8·0	R
18	...	20 45·07	...	29 6·7	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
July 20	...	18 20 45·00	...	115 29 5·2	R
24	...	20 44·89	...	29 4·9	R
28	...	20 45·03	...	29 6·1	R
30	...	20 44·91	...	29 5·6	R
Aug. 2	...	20 44·94	...	29 6·9	R
3	...	20 44·97	...	29 6·5	R
4	...	20 44·93	...	29 5·2	R
8	...	20 44·95	...	29 7·8	R
9	...	20 45·00	...	29 4·5	R
10	...	20 45·02	...	29 4·6	R
11	...	20 44·98	...	29 6·1	R
13	...	20 44·98	...	29 4·8	R
14	...	20 44·97	...	29 7·2	R
16	...	20 45·00	...	29 6·5	R
18	...	20 45·00	...	29 7·3	R
25	...	20 44·90	...	29 7·1	R
28	...	20 44·95	...	29 6·1	R
330		*Anon.*			
May 23	9·5	18 22 46·09	...	129 38 49·7	R
28	9·5	22 46·28	...	38 50·8	R
29	9·5	22 45·98	...	38 50·7	R
30	9·5	22 45·97	...	38 51·3	R
June 1	9·5	22 45·89	...	38 51·0	R
331		*Anon.*			
June 7	7·0	18 23 24·78	...	127 40 10·1	R
9	...	23 24·77	...	40 12·1	M
11	...	23 24·90	...	40 10·2	M
15	7·0	23 24·73	...	40 10·4	M
22	7·0	23 24·84	...	40 11·3	M
332		*Stone* 10124.			
May 24	7·0	18 29 26·83	...	131 42 30·5	R
28	7·0	29 26·80	...	42 31·5	R
29	7·0	29 26·82	...	42 32·4	R
30	7·0	29 26·78	...	42 33·6	R
June 1	7·0	29 26·63	...	42 34·4	R
333		*Anon.*			
June 22	8·5	18 30 45·26	...	127 5 56·9	M
Aug. 13	8·5	30 45·18	...	5 57·5	R
Aug. 14	8·5	18 30 45·30	...	127 5 57·3	R
16	8·5	30 45·48	...	5 57·2	R
18	8·5	30 45·43	...	5 57·5	R
25	8·5	30 45·38	...	5 57·1	R
334		*Anon.*			
July 4	9·0	18 30 55·10	...	127 58 16·9	R
Aug. 8	9·0	30 55·36	...	58 17·9	R
9	9·0	30 55·23	...	58 19·0	R
10	9·0	30 55·23	...	58 18·7	R
11	9·0	30 55·29	...	58 18·3	R
335		*Anon.*			
June 7	7·5	18 31 24·82	...	127 23 13·8	R
8	...	31 25·07	6	23 14·0	M
9	7·5	31 24·78	...	23 12·1	M
14	7·5	31 24·80	...	23 15·0	M
336		*Stone* 10154.			
May 18	...	18 32 12·34	...	134 16 33·9	R
19	...	32 12·16	...	16 33·8	R
23	...	32 12·17	...	16 32·1	R
337		*Anon.*			
May 25	8·0	18 34 2·21	...	125 42 3·8	R
28	8·0	34 2·13	...	42 4·9	R
29	8·0	34 2·38	...	42 6·3	R
30	8·0	34 2·36	...	42 6·5	R
June 1	8·0	34 2·29	..	42 6·1	R
338		*Anon.*			
Aug. 28	8·0	18 34 16·75	...	124 34 19·6	R
Sep. 4	...	34 16·61	...	34 18·0	M
13	...	34 16·56	...	34 17·0	M
15	7·8	34 16·56	...	34 17·8	M
17	...	34 16·85	3	34 16·6	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
339		*Stone* 10187.			
July 30	8·0	18 36 45·21	...	127 0 6·9	R
Aug. 10	7·5	36 45·06	...	0 8·8	R
13	7·5	36 45·12	...	0 7·2	R
16	7·5	36 45·11	...	0 7·7	R
18	7·5	36 45·07	...	0 8·3	R
340		*Taylor* 8599.			
June 11	...	18 36 49·54	...	129 48 6·8	M
15	...	36 49·30	...	48 5·2	M
July 18	...	36 49·52	...	48 7·2	R
20	...	36 49·48	...	48 6·8	R
Aug. 11	...	36 49·24	...	48 6·8	R
14	...	36 49·33	...	48 6·2	R
341		*Taylor* 8600.			
June 14	7·5	18 36 51·35	5	129 51 37·3	M
20	7·0	36 51·40	5	51 36·5	M
July 3	7·0	36 51·48	...	51 36·4	R
4	7·0	36 51·55	...	51 37·7	R
Aug. 9	7·0	36 51·59	...	51 37·4	R
342		*Anon.*			
May 18	7·5	18 38 45·46	...	131 16 59·7	R
19	7·5	38 45·43	...	16 59·6	R
24	7·5	38 45·57	..	17 1·3	R
25	7·5	38 45·56	...	17 1·7	R
28	7·5	38 45·55	...	17 0·5	R
343		*Anon.*			
May 29	9·0	18 39 14·20	...	128 56 33·9	R
30	9·0	39 14·16	...	56 34·8	R
June 1	9·0	39 14·17	...	56 34·3	R
7	9·0	39 13·90	...	56 33·7	R
8	9·0	39 14·48	...	56 33·7	M

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
344		*Stone* 10239.			
Aug. 8	...	18 42 49·64	...	134 36 22·9	R
9	...	42 49·50	...	36 20·6	R
10	...	42 49·55	...	36 20·3	R
11	..	42 49·39	...	36 19·7	R
13	...	42 49·36	...	36 19·6	R
14	...	42 49·36	...	36 19·4	R
345		*Anon.*			
June 15	8·0	18 43 30·96	...	134 49 13·8	M
Sep. 4	8·3	43 31·07	...	49 14·2	M
15	7·7	43 31·00	...	49 14·7	M
22	...	43 30·98	...	49 11·6	M
26	8·0	43 31·44	...	49 13·6	M
346		*Taylor* 8647.			
Sep. 13	...	18 43 38·53	...	134 40 15·5	M
20	...	43 38·66	...	40 15·8	M
27	7·0	43 38·48	6	40 13·8	M
29	7·5	43 38·59	...	40 15·3	M
347		*Anon.*			
Aug. 28	8·0	18 43 48·76	...	125 31 1·6	R
Sep. 14	7·8	43 48·70	6	31 1·6	M
28	...	43 48·89	...	31 2·8	M
348		*Anon.*			
May 29	9·5	18 45 24·16	...	129 28 13·2	R
30	9·0	45 24·12	...	28 13·7	R
June 1	9·0	45 24·04	...	28 13·5	R
14	9·0	45 24·31	...	28 14·3	M
349		*Anon.*			
Aug. 14	8·0	18 47 6·37	...	133 50 45·8	R
18	8·0	47 6·66	4	50 47·0	R
25	8·0	47 6·52	...	50 46·6	R
Sep. 17	...	47 6·61	...	50 45·4	M
24	8·0	47 6·56	...	50 47·7	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
350		*Taylor* 8685.			
Aug. 8	...	18 48 44·25	...	127 29 28·8	R
9	...	48 44·33	...	29 24·8	R
10	...	48 44·07	...	29 24·3	R
11	...	48 44·09	...	29 26·0	R
13	...	48 44·09	...	29 23·3	R
351		*Anon.*			
May 30	9·5	18 52 14·82	...	132 56 57·4	R
352		*Taylor* 8715.—1*st.*			
July 30	7·5	18 53 8·67	...	127 13 16·5	R
Sep. 15	7·0	53 8·66	...	13 16·0	M
25	...	53 8·53	5	13 14·8	M
27	7·3	53 8·68	...	13 15·7	M
28	...	53 8·66	...	13 16·3	M
353		*Taylor* 8715.—2*nd.*			
Sep. 17	7·5	18 53 9·90	...	127 13 19·1	M
20	...	53 9·67	...	13 19·3	M
22	...	53 9·78	...	13 18·1	M
24	...	53 9·74	...	13 19·2	M
26	7·3	53 9·80	...	13 18·2	M
354		*Anon.*			
July 28	8·5	18 53 54·82	...	128 6 55·2	R
Sep. 14	8·5	53 54·91	...	6 57·3	M
355		13 *Aquilæ* ε			
June 1	...	18 54 18·66	...	75 5 23·2	R
7	...	54 18·62	...	5 21·6	R
9	...	54 18·66	...	5 21·4	M
14	...	54 18·67	...	5 24·5	M
15	...	54 18·67	...	5 22·2	M
20	...	54 18·47	...	5 22·1	M
Aug. 8	...	54 18·67	...	5 23·5	R
9	...	54 18·62	...	5 22·1	R
10	...	54 18·66	...	5 22·9	R
11	...	54 18·58	...	5 22·2	R
13	...	54 18·62	...	5 22·7	R
Aug. 14	...	18 54 18·74	...	75 5 22·2	R
16	...	54 18·63	...	5 22·6	R
18	...	54 18·62	...	5 21·6	R
25	...	54 18·67	...	5 22·2	R
28	...	54 18·65	...	5 21·2	R
Sep. 4	...	54 18·55	...	5 23·3	M
5	...	54 18·57	...	5 22·8	M
10	...	54 18·64	...	5 21·3	M
11	...	54 18·60	...	5 22·3	M
356		*Stone* 10351.			
Sep. 29	6·0	18 55 18·37	...	128 25 13·5	M
Oct. 1	6·0	55 18·18	...	25 14·2	R
4	6·0	55 18·21	4	25 11·5	R
5	6·0	55 18·23	...	25 11·8	R
357		*Anon.*			
June 15	7·5	19 0 12·02	...	135 15 25·2	M
Sep. 4	7·5	0 11·69	...	15 26·8	M
13	...	0 11·79	...	15 25·5	M
14	...	0 11·69	5	15 26·3	M
15	7·5	0 11·72	...	15 26·9	M
358		*Stone* 10391.			
Sep. 26	7·3	19 0 33·03	...	132 36 21·5	M
27	7·3	0 33·01	...	36 21·9	M
359		*Stone* 10400.			
June 11	...	19 1 34·60	...	130 0 36·7	M
14	...	1 34·39	...	0 38·8	M
22	...	1 34·44	...	0 37·6	M
July 18	...	1 34·78	...	0 38·3	R
30	...	1 34·64	...	0 38·9	R
360		*Anon.*			
Aug. 11	8·0	19 4 10·15	...	135 27 42·0	R
13	9·0	4 9·97	...	27 41·4	R
14	8·5	4 10·01	...	27 41·5	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
361		*Stone* 10420.			
Sep. 28	...	19 4 14·46	..	127 46 29·6	M
29	...	4 14·58	...	46 27·6	M
Oct. 1	...	4 14·52	...	46 27·5	R
4	...	4 14·47	...	46 26·0	R
5	...	4 14·52	...	46 27·1	R
362		*Stone* 10432.			
Aug. 8	...	19 6 8·82	...	135 23 26·3	R
9	...	6 8·73	...	23 22·6	R
363		*Anon.*			
Aug. 25	7·5	19 7 41·64	...	129 24 5·0	R
28	7·5	7 41·62	...	24 5·5	R
364		*Taylor* 8823.			
June 15	...	19 7 50·29	...	135 40 3·9	M
Sep. 4	...	7 50 27	...	40 4·2	M
10	...	7 50·37	4	40 0·2	M
13	...	7 50·27	...	40 3·9	M
15	...	7 50·28	...	40 4·8	M
20	...	7 50·32	...	40 6·3	M
365		*Stone* 10451.			
Sep. 11	...	19 8 52·41	5	135 37 34·5	M
14	...	8 52·26	...	37 33·6	M
22	...	8 52·39	5	37 32·2	M
24	...	8 52·24	...	37 33·6	M
366		*Anon.*			
Aug. 13	9·5	19 10 13·38	...	130 46 34·5	R
14	9·5	10 13·37	...	46 34·1	R
367		*Anon*			
Aug. 11	7·5	19 10 40·16	...	129 45 12·3	R
368		*Stone* 10465.			
Oct. 1	6·0	19 11 54·50	...	125 37 58·8	R
4	6·0	11 54·47	4	37 59·0	R
5	6·0	11 54·76	...	37 59·8	R

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
369		*Stone* 10467.			
June 22	7·0	19 12 30·34	...	135 35 11·5	M
July 28	7·0	12 30·49	...	35 10·3	R
30	7·0	12 30·36	...	35 10·9	R
Aug. 9	7·0	12 30·46	...	35 13·0	R
10	7·0	12 30·47	...	35 12·5	R
370		*Stone* 10487.			
Sep. 26	7·0	19 14 14·69	...	119 49 18·6	M
27	7·0	14 14·61	...	49 17·3	M
28	7·0	14 14·37	...	49 19·1	M
Oct. 6	7·0	14 14·61	5	49 15·4	R
371		*Anon.*			
Aug. 25	...	19 14 18·73	...	127 26 18·0	R
28	...	14 18·71	...	26 18·4	R
Sep. 12	...	14 18·99	...	26 17·5	M
13	...	14 18·63	...	26 18·4	M
15	...	14 18·81	...	26 18·6	M
372		*Anon.*			
July 30	9·0	19 17 6·91	...	130 4 35·8	R
Aug. 11	9·0	17 6·72	...	4 37·5	R
373		49 *Sagittarii* χ^3			
Sep. 29	6·0	19 18 24·67	...	114 11 26·5	M
Oct. 9	6·0	18 24·62	...	11 22·9	R
374		*Anon.*			
Aug. 8	9·5	19 19 47·82	...	130 13 15·7	R
13	9·5	19 47·69	...	13 11·6	R
14	9·5	19 47·66	...	13 10·7	R
16	9·5	19 47·76	...	13 11·1	R
25	9·5	19 47·89	...	13 10·8	R
375		*Stone* 10534.			
Sep. 27	...	19 21 55·28	...	125 19 13·4	M
28	...	21 55·30	...	19 13·6	M
Oct. 5	...	21 55·21	...	19 12·8	R
9	...	21 55·09	...	19 14·7	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
376		*Anon.*			
July 28	8·0	19 22 5·66	4	132 34 15·8	R
30	8·0	22 5·78	...	34 17·4	R
Sep. 4	8·0	22 5·66	...	34 16·1	M
13	...	22 5·76	...	34 16·7	M
377		*Anon.*			
Aug. 8	9·0	19 25 49·63	...	133 42 50·9	R
378		*Anon*			
Sep. 14	...	19 25 58·47	...	146 55 2·1	M
15	...	25 58·58	...	55 2·5	M
379		*Taylor* 8982.			
Oct. 11	...	19 28 35·13	...	148 14 24·0	R
380		*Stone* 10583.			
July 30	7·5	19 29 32·25	...	131 42 59·3	R
Aug. 9	7·0	29 32·24	...	42 58·9	R
10	7·0	29 32·26	...	42 58·5	R
11	7·0	29 32·29	...	42 57·7	R
16	7·0	29 32·21	...	42 57·8	R
381		*Anon.*			
Aug. 25	8·0	19 29 45·56	...	125 29 57·6	R
28	8·0	29 45·56	...	29 57·5	R
Sep. 4	8·0	29 45·72	6	29 57·9	M
13	...	29 45·67	...	29 58·3	M
382		*Anon.*			
July 28	8·0	19 30 11·65	...	129 1 3·4	R
383		*Stone* 10594.			
Sep. 26	6·0	19 31 17·28	...	135 32 34·4	M
27	6·0	31 17·39	...	32 33·9	M
28	6·0	31 17·06	...	32 34·6	M
29	6·0	31 17·33	...	32 34·0	M
Oct. 1	6·0	31 17·06	...	32 34·2	R

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
384		*Stone* 10598.			
Oct. 9	6·7	19 31 57·21	...	129 41 45·9	R
13	6·7	31 57·31	...	41 48·3	R
385		*Anon.*			
Oct. 5	7·5	19 33 25·30	3	126 35 58·9	R
386		*Stone* 10622.			
Sep. 27	...	19 35 48·41	...	127 48 47·6	M
29	...	35 48·42	...	48 46·8	M
387		*Stone* 10624.			
Oct. 11	7·0	19 36 21·45	...	131 53 7·6	R
13	7·0	36 21·60	...	53 9·1	R
18	7·0	36 21·50	...	53 8·0	R
388		*R. P. L.* 133.			
Aug. 4	...	19 37 47·34	3	4 9 17·0	R
8	...	37 47·43	3	9 18·3	R
9	...	37 47·19	3	9 16·1	R
10	...	37 47·27	3	9 16·4	R
11	...	37 47·50	3	9 16·4	R
13	...	37 45·18	3	9 17·2	R
16	...	37 47·70	3	9 15·7	R
Sep. 4	...	37 45·61	3	9 16·4	M
		R. P. L. 133.—*s.p.*			
Jan. 27	...	19 37 47·14	3	4 9 18·0	M
29	...	37 46·94	3	9 17·2	M
30	...	37 48·00	3	9 16·6	M
Feb. 1	...	37 46·84	2	9 18·1	R
2	...	37 47·27	3	9 19·0	R
8	...	37 47·11	3	9 16·3	R
389		*R. P. L.* 134.			
Aug. 8	...	19 39 34·97	3	4 9 34·9	R
9	...	39 34·88	3	9 32·0	R
11	...	39 35·03	3	9 31·6	R
16	...	39 35·01	3	9 31·2	R
Sep. 14	...	39 34·91	3	9 32·5	M
26	...	39 35·15	3	9 31·8	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
		R. P. L.* 134.—*s.p.			
Jan. 31	...	19 39 36·11	3	4 9 31·1	M
Feb. 7	...	39 35·88	3	9 31·7	M
10	...	39 34·25	3	9 32·1	R
13	...	39 34·45	3	9 29·9	R
14	...	39 34·56	3	9 32·5	R
15	...	39 34·60	3	9 31·5	R
19	...	39 33·98	3	9 32·5	R
20	...	39 34·27	3	9 32·2	R
24	...	39 35·06	3	9 33·5	R
28	...	39 34·23	3	9 33·8	R
390		***Anon.***			
July 28	8·0	19 39 48·78	...	125 27 35·5	R
30	8·0	39 48·69	...	27 36·3	R
Aug. 14	8·0	39 48·77	...	27 35·9	R
391		***Anon.***			
Aug. 18	7·0	19 40 25·79	...	128 8 5·9	R
Sep. 12	...	40 25·68	...	8 5·6	M
20	...	40 25·76	5	8 7·8	M
22	...	40 25·75	...	8 5·5	M
26	7·3	40 25·73	...	8 5·6	M
392		***Stone* 10658.**			
Sep. 15	7·0	19 41 45·06	...	128 4 2·6	M
21	...	41 45·05	6	4 1·2	M
24	7·0	41 45·14	...	4 3·0	M
29	7·0	41 45·12	5	4 1·2	M
Oct. 1	7·0	41 44·91	3	4 2·2	R
5	7·0	41 44·80	...	3 59·6	R
393		***Stone* 10665.**			
Oct. 11	6·7	19 42 49·62	...	141 16 10·4	R
13	6·7	42 49·73	...	16 12·5	R
18	6·7	42 49·80	...	16 11·3	R
19	6·7	42 49·86	...	16 11·7	R
20	6·7	42 49·78	...	16 10·6	M
394		***Taylor* 9112.**			
July 28	...	19 43 53·70	...	130 10 9·2	R
30	...	43 53·59	...	10 9·8	R
395		***Stone* 10677.**			
Aug. 25	...	19 43 59·76	...	127 37 47·6	R
Sep. 11	...	43 59·66	...	37 48·3	M
17	...	43 59·75	...	37 46·1	M
25	...	43 59·78	...	37 48·5	M
27	...	43 59·94	...	37 48·6	M
396		***Taylor* 9131.**			
Sep. 26	...	19 47 16·69	3	148 13 53·3	M
Oct. 4	...	47 16·48	...	13 50·4	R
397		***Anon.***			
Aug. 9	8·5	19 48 9·48	...	131 59 53·2	R
Sep. 15	...	48 9·76	...	59 52·9	M
398		***Anon.***			
Sep. 20	...	19 50 19·15	6	132 59 35·1	M
399		***Stone* 10720.**			
Oct. 5	...	19 50 30·01	...	126 59 46·3	R
9	...	50 30·12	...	59 51·3	R
17	...	50 30·24	...	59 49·6	R
18	...	50 30·03	...	59 47·9	R
19	...	50 30·21	...	59 49·0	R
400		***Stone* 10727.**			
Sep. 27	7·0	19 51 34·65	...	120 51 1·9	M
28	6·0	51 34·64	5	51 2·5	M
29	7·0	51 34·41	...	51 2·2	M
Oct. 1	6·7	51 34·58	...	51 3·2	R
4	6·7	51 34·67	...	51 0·5	R
401		***Stone* 10739.**			
Oct. 11	6·5	19 52 18·13	...	133 21 38·5	R
13	6·5	52 18·13	...	21 40·3	R
20	6·5	52 17·98	...	21 38·5	M
22	6·5	52 18·07	...	21 38·0	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
402		*Stone* 10752.			
Aug. 28	8·5	19 53 51·52	...	126 59 56·9	R
Sep. 15	7·0	53 51·54	5	59 55·2	M
19	...	53 51·70	6	59 53·9	M
22	7·0	53 51·60	...	59 56·8	M
24	...	53 51·54	4	59 57·8	M
403		*Anon.*			
Aug. 16	8·0	19 54 29·56	...	130 18 18·3	R
404		*Taylor* 9195.			
Oct. 1	...	19 55 46·78	...	128 15 46·9	R
6	...	55 46·79	...	15 44·3	R
9	...	55 46·71	...	15 45·3	R
10	..	55 46·69	...	15 46·1	R
17	...	55 46·96	...	15 47·4	R
405		*Anon.*			
Aug. 13	9·0	19 56 54·59	...	131 48 51·0	R
14	9·0	56 54·60	...	48 50·7	R
18	9·0	56 54·87	...	48 50·5	R
Sep. 14	9·0	56 54·71	...	48 49·7	M
406		*Taylor* 9213.			
Oct. 11	...	19 58 21·94	...	145 20 58·5	R
13	...	58 21·79	...	21 1·3	R
18	...	58 21·72	...	21 0·0	R
19	...	58 21·90	...	20 59·7	R
22	...	58 21·96	...	21 0·7	R
407		*Anon.*			
Aug. 8	9·5	19 58 30·55	...	148 10 38·2	R
9	9·5	58 30·44	...	10 36·4	R
408		*Stone* 10792.			
Sep. 26	...	19 59 43·92	6	125 52 0·6	M
27	...	59 43·76	...	52 0·0	M
28	...	59 43·83	5	51 59·5	M
29	...	59 43·73	...	51 59·8	M
Oct. 5	...	59 43·78	...	51 58·6	R

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
409		*Stone* 10797.			
Oct. 9	...	20 0 38·85	...	137 24 11·2	R
10	...	0 38·82	...	24 11·4	R
20	...	0 38·94	...	24 13·5	M
410		*Stone* 10823.			
Oct. 11	6·7	20 5 6·49	...	138 3 38·5	R
13	6·7	5 6·55	...	3 39·6	R
18	6·7	5 6·55	...	3 37·2	R
19	6·7	5 6·59	...	3 38·4	R
22	6·7	5 6·74	...	3 38·8	R
411		65 *Aquilæ* θ			
Aug. 9	...	20 5 15·98	...	91 10 4·3	R
10	...	5 16·00	...	10 4·4	R
11	...	5 16·04	...	10 3·7	R
13	...	5 16·03	...	10 2·4	R
14	...	5 15·90	...	10 2·1	R
16	...	5 16·00	...	10 2·4	R
18	...	5 15·99	...	10 3·2	R
25	...	5 16·04	...	10 2·6	R
28	...	5 16·00	...	10 3·7	R
Sep. 3	...	5 16·09	...	10 3·3	M
25	...	5 16·03	...	10 2·8	M
26	...	5 16·02	...	10 4·9	M
27	...	5 16·10	...	10 5·6	M
28	...	5 16·02	...	10 5·9	M
29	...	5 16·12	...	10 3·4	M
Oct. 1	...	5 16·00	...	10 2·7	R
3	...	5 16·03	...	10 1·4	R
4	...	5 15·97	...	10 1·8	R
5	...	5 15·98	...	10 1·6	R
6	...	5 15·94	...	10 1·0	R
412		*Taylor* 9303.			
Oct. 10	...	20 7 59·36	...	117 22 51·7	R
17	...	7 59·45	...	22 52·9	R
413		*Stone* 10840.			
Oct. 5	...	20 8 46·35	...	126 48 33·1	R
9	...	8 46·38	...	48 33·2	R
20	...	8 46·54	...	48 35·2	M
23	...	8 46·50	...	48 35·6	R
25	...	8 46·68	..	48 35·4	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
414		*Stone* 10858.			
Aug. 8	7·0	20 10 48·27	...	134 53 16·2	R
11	7·0	10 48·19	...	53 14·5	R
Sep. 4	7·0	10 47·98	..	53 11·0	M
415		*Stone* 10859.			
Sep. 27	7·0	20 10 52·80	...	137 56 12·5	M
29	6·7	10 52·70	4	56 11·6	M
Oct. 1	6·7	10 52·63	3	56 11·9	R
6	6·7	10 52·73	...	56 9·0	R
11	6·7	10 52·57	...	56 12·4	R
416		*Taylor* 9343.			
Oct. 18	6·7	20 13 10·81	...	140 21 32·9	R
23	6·7	13 10·90	...	21 33·8	R
24	6·7	13 10·98	...	21 33·6	R
25	6·7	13 11·03	...	21 33·7	R
417		*Stone* 10884.			
Sep. 5	...	20 13 48·99	...	123 6 21·7	M
10	...	13 48·88	4	6 17·9	M
11	...	13 49·09	5	6 19·3	M
14	...	13 48·90	6	6 21·2	M
15	...	13 48·86	...	6 21·6	M
418		*Anon.*			
Aug. 16	8·0	20 14 42·91	...	133 19 33·0	R
Sep. 17	...	14 42·91	5	19 31·8	M
22	...	14 42·96	...	19 30·2	M
25	..	14 43·11	5	19 31·2	M
26	8·0	14 43·07	...	19 31·2	M
419		*Taylor* 9370.			
Oct. 8	...	20 15 55·43	5	132 47 51·8	R
9	...	15 55·57	...	47 49·0	R
10	...	15 55·55	...	47 49·3	R
17	...	15 55·68	...	47 50·2	R
19	...	15 55·64	...	47 51·2	R

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
420		*R. P. L.* 138.			
Aug. 4	...	20 16 18·81	3	5 40 32·0	R
Sep. 4	...	16 19·55	3	40 31·8	M
14	...	16 18·00	3	40 30·0	M
15	...	16 17·95	3	40 29·5	M
28	..	16 16·91	3	40 29·7	M
421		*Anon.*			
Sep. 17	...	20 20 6·49	...	130 23 42·1	M
27	8·0	20 6·53	4	23 43·5	M
29	7·5	20 6·65	...	23 43·6	M
422		*Taylor* 9415.			
Oct. 8	...	20 21 15·81	...	125 58 48·1	R
9	...	21 15·99	...	58 50·9	R
10	...	21 15·99	...	58 50·2	R
11	...	21 16·06	...	58 51·1	R
13	...	21 16·19	...	58 52·1	R
423		*Stone* 10939.			
Oct. 17	6·0	20 23 46·65	...	119 30 12·7	R
18	6·3	23 46·93	...	30 10·4	R
19	6·3	23 46·70	...	30 12·7	R
20	6·5	23 46·65	...	30 11·3	M
22	6·3	23 46·70	...	30 12·5	R
424		*Taylor* 9464.			
Oct. 10	7·0	20 26 40·72	...	112 37 36·1	R
11	7·0	26 40·77	...	37 37·1	R
23	7·0	26 40·93	...	37 37·2	R
25	7·0	26 40·64	...	37 37·6	R
425		*R. P. L.* 143.			
July 28	...	20 26 58·79	3	5 14 40·0	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
426		*2 Delphini ϵ*			
Sep. 4	...	20 27 37·43	...	79 5 37·6	M
5	...	27 37·33	...	5 34·1	M
10	...	27 37·39	...	5 36·4	M
11	...	27 37·40	...	5 37·5	M
12	...	27 37·32	...	5 37·5	M
13	...	27 37·22	...	5 37·8	M
14	...	27 37·26	...	5 37·7	M
15	...	27 37·37	...	5 37·5	M
17	...	27 37·41	...	5 36·7	M
19	...	27 37·37	...	5 37·3	M
20	...	27 37·30	...	5 38·5	M
21	...	27 37·25	...	5 37·0	M
22	...	27 37·18	...	5 35·8	M
24	...	27 37·38	...	5 39·1	M
25	...	27 37·26	...	5 37·0	M
26	...	27 37·29	...	5 38·6	M
27	...	27 37·27	...	5 39·0	M
28	...	27 37·33	...	5 38·4	M
29	...	27 37·33	...	5 37·4	M
Oct. 1	...	27 37·26	...	5 38·3	R
3	...	27 37·28	...	5 36·3	R
4	...	27 37·33	...	5 34·8	R
5	...	27 37·34	...	5 34·9	R
6	...	27 37·17	...	5 36·3	R
8	...	27 37·36	...	5 37·6	R
427		*Stone* 11003.			
Oct. 9	...	20 32 23·46	4	126 26 32·3	R
19	...	32 23·52	...	26 34·4	R
20	...	32 23·23	...	26 32·9	M
23	...	32 23·51	6	26 33·1	R
24	...	32 23·47	...	26 31·8	R
428		*Taylor* 9519.			
Sep. 4	...	20 33 34·17	5	132 32 46·5	M
15	...	33 34·17	...	32 47·9	M
429		*Taylor* 9544.			
Oct. 5	...	20 35 13·01	...	129 58 29·9	R
6	...	35 13·03	...	58 30·6	R
Oct. 11	...	20 35 12·87	...	129 58 32·3	R
25	...	35 13·06	...	58 34·4	R
Nov. 6	...	35 13·08	...	58 32·8	R
430		*Taylor* 9561.			
Oct. 10	...	20 37 14·09	...	126 14 53·6	R
19	...	37 14·27	...	14 54·1	R
22	...	37 14·49	...	14 52·8	R
24	...	37 14·34	...	14 55·5	R
431		*Anon.*			
Sep. 25	...	20 37 38·58	4	126 31 44·9	M
26	8·0	37 38·24	...	31 44·1	M
27	...	37 38·32	..	31 44·2	M
28	...	37 38·39	6	31 44·8	M
432		*Taylor* 9573.			
Oct. 18	...	20 39 21·06	...	136 16 48·8	R
23	...	39 21·14	...	16 49·7	R
433		*2 Aquarii ϵ*			
Sep. 3	...	20 41 20·45	...	99 55 24·1	M
4	...	41 20·43	...	55 23·8	M
5	...	41 20·50	...	55 24·5	M
10	...	41 20·38	...	55 23·7	M
11	...	41 20·39	...	55 23·8	M
12	...	41 20·51	...	55 23·6	M
13	...	41 20·43	...	55 23·4	M
14	...	41 20·48	...	55 24·2	M
15	...	41 20·49	...	55 25·4	M
17	...	41 20·44	...	55 23·1	M
19	...	41 20·36	...	55 23·3	M
20	...	41 20·37	...	55 25·3	M
21	...	41 20·36	...	55 22·8	M
22	...	41 20·59	...	55 23·9	M
24	...	41 20·57	...	55 24·5	M
Oct. 1	...	41 20·50	...	55 22·7	R
3	...	41 20·44	...	55 21·6	R
4	...	41 20·45	...	55 23·3	R
5	...	41 20·40	...	55 24·1	R
6	...	41 20·49	...	55 21·9	R
8	...	41 20·43	...	55 23·0	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
434	*Anon.*				
Sep. 29	...	20 41 44·10	...	132 8 36·9	M
435	*Taylor* 9602.				
Oct. 9	6·3	20 42 20·49	...	116 12 42·5	R
10	6·3	42 20·43	...	12 44·0	R
11	6·3	42 20·61	...	12 42·6	R
19	6·3	42 20·61	...	12 44·4	R
22	6·3	42 20·66	...	12 42·7	R
436	*Stone* 11081.				
Sep. 25	...	20 43 59·40	...	131 20 28·7	M
437	*Stone* 11091.				
Oct. 23	...	20 44 40·91	...	142 9 10·9	R
438	*Anon.*				
Sep. 26	8·0	20 45 22·48	...	135 45 24·7	M
27	8·0	45 22·39	...	45 25·2	M
Oct. 4	8·0	45 22·37	...	45 22·4	R
439	*Stone* 11103.				
Aug. 28	...	20 46 13·44	...	141 10 4·7	R
Sep. 4	...	46 13·41	...	10 1·0	M
12	...	46 13·35	...	9 59·0	M
21	...	46 13·39	5	10 0·2	M
22	...	46 13·32	...	9 58·9	M
440	*Stone* 11115.				
Oct. 17	...	20 47 5·44	...	118 22 0·0	R
Nov. 5	...	47 5·59	3	21 58·4	M
441	*Stone* 11120.				
Oct. 11	...	20 47 24·35	...	145 39 54·7	R
18	...	47 24·38	...	39 54·4	R
19	...	47 24·40	...	39 55·9	R
24	...	47 24·48	...	39 54·6	R
25	...	47 24·39	...	39 57·5	R
442	*Anon.*				
Sep. 14	8·5	20 52 32·77	5	129 10 31·8	M
15	...	52 32·71	...	10 33·4	M
443	*Stone* 11150.				
Sep. 12	...	20 53 34·41	...	129 11 31·8	M
444	*Stone* 11156.				
Oct. 8	6·7	20 54 13·32	...	123 21 7·2	R
9	6·7	54 13·50	...	21 5·9	R
10	6·7	54 13·52	...	21 6·2	R
11	6·7	54 13·39	...	21 5·1	R
18	6·7	54 13·33	...	21 8·2	R
445	*Stone* 11175.				
Aug. 28	8·0	20 56 1·50	...	142 21 24·3	R
Oct. 6	7·0	56 1·31	...	21 20·5	R
17	7·0	56 1·35	...	21 22·2	R
20	7·0	56 1·46	...	21 21·1	M
22	7·0	56 1·64	...	21 22·4	R
446	*Stone* 11186.				
Oct. 5	7·0	20 57 44·20	...	127 41 29·1	R
23	7·0	57 44·27	...	41 32·2	R
447	*Stone* 11191.				
Oct. 24	7·0	20 58 12·54	...	138 59 25·9	R
25	7·0	58 12·45	...	59 27·3	R
Nov. 5	...	58 12·42	...	59 25·0	M
6	7·0	58 12·63	...	59 24·4	M
448	*23 Capricorni* θ				
Sep. 3	...	20 59 22·04	...	107 41 48·9	M
12	...	59 22·04	...	41 49·0	M
13	...	59 22·22	5	41 50·0	M
14	...	59 22·13	...	41 51·7	M
15	...	59 22·03	...	41 50·6	M
17	...	59 22·02	...	41 50·5	M
19	...	59 22·15	...	41 50·1	M

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
Sep. 20	...	20 59 22·21	...	107 41 52·5	M
21	...	59 22·28	...	41 50·8	M
22	...	59 22·10	...	41 50·4	M
24	...	59 22·01	...	41 50·6	M
25	...	59 21·97	...	41 49·9	M
26	...	59 22·16	...	41 50·6	M
27	...	59 22·12	...	41 50·0	M
28	...	59 22·01	...	41 49·7	M
29	...	59 22·13	...	41 51·5	M
Oct. 1	...	59 22·14	...	41 50·7	R
9	...	59 22·11	...	41 48·3	R
10	...	59 22·15	...	41 49·4	R
11	...	59 22·11	...	41 49·5	R
449		*Anon.*			
Oct. 18	8·0	21 0 13·05	...	150 59 40·0	R
450		*Stone* 11227.			
Oct. 4	6·7	21 1 58·59	...	134 40 54·3	R
5	6·7	1 58·60	...	40 54·4	R
20	6·7	1 58·60	...	40 55·1	M
22	6·7	1 58·88	...	40 56·8	R
23	6·7	1 58·78	...	40 55·3	R
451		*Taylor* 9809.			
Sep. 26	...	21 5 33·56	...	129 54 2·8	M
27	...	5 33·58	...	54 2·3	M
29	...	5 33·77	...	54 1·8	M
Oct. 1	...	5 33·64	...	54 1·9	R
9	...	5 33·70	...	54 1·0	R
452		*Taylor* 9843.			
Sep. 28	6·5	21 9 53·87	...	139 12 11·4	M
29	7·0	9 53·98	...	12 10·7	M
Oct. 4	6·7	9 53·99	...	12 9·7	R
5	6·7	9 53·98	...	12 10·6	R
11	6·7	9 53·87	...	12 13·1	R
453		*Taylor* 9889.			
Sep. 26	6·5	21 14 52·22	...	119 39 40·4	M
Oct. 3	6·7	14 52·10	...	39 41·4	R
4	6·7	14 52·12	...	39 41·0	R
5	6·7	14 52·09	...	39 41·7	R
18	6·7	14 52·00	...	39 39·4	R
454		33 *Capricorni.*			
Sep. 28	...	21 17 31·26	...	111 20 54·8	M
29	...	17 31·23	...	20 48·7	M
Oct. 1	...	17 31·17	...	20 52·2	R
11	...	17 31·26	...	20 49·3	R
19	...	17 31·45	...	20 50·1	R
455		*Stone* 11367.			
Sep. 26	7·0	21 21 39·61	5	152 40 33·3	M
27	...	21 39·54	5	40 34·1	M
Oct. 18	6·7	21 39·51	...	40 33·8	R
19	6·7	21 39·71	...	40 34·4	R
20	6·7	21 39·46	...	40 34·3	M
456		*R. P. L.* 149.			
Sep. 4	...	21 22 43·22	3	3 26 57·1	M
14	...	22 45·06	2	26 56·4	M
457		*Stone* 11390.			
Sep. 28	6·0	21 25 48·17	...	135 21 56·3	M
29	6·0	25 48·20	...	21 54·1	M
Oct. 4	6·0	25 48·35	...	21 51·8	R
5	6·0	25 48·33	...	21 52·9	R
6	6·0	25 48·32	...	21 54·3	R
458		*Stone* 11403.			
Sep. 26	6·0	21 28 41·66	5	155 20 47·2	M
27	...	28 41·41	...	20 49·2	M
Oct. 3	6·0	28 41·48	...	20 48·8	R
11	6·0	28 41·44	...	20 51·0	R
18	6·0	28 41·56	...	20 48·6	R

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Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
459		*Stone* 11428.			
Sep. 28	...	21 32 3·66	...	124 12 14·9	M
29	...	32 3·83	...	12 15·6	M
Oct. 1	...	32 3·71	4	12 16·0	R
4	...	32 3·75	...	12 13·2	R
5	...	32 3·68	...	12 14·5	R
460		*Stone* 11434.			
Sep. 10	...	21 32 25·98	...	133 39 29·6	M
12	...	32 25·73	...	39 31·4	M
461		*Taylor* 10073.			
Sep. 26	...	21 36 6·32	...	146 0 23·3	M
27	...	36 6·33	...	0 24·2	M
Oct. 3	...	36 6·49	...	0 23·4	R
4	...	36 6·46	...	0 23·4	R
5	...	36 6·44	...	0 24·4	R
462		*Stone* 11470.			
Sep. 10	...	21 37 46·38	5	128 58 33·2	M
17	...	37 46·29	...	58 37·8	M
23	...	37 46·44	...	58 34·9	M
463		8 *Pegasi* ϵ			
Oct. 9	...	21 38 26·37	...	80 39 36·8	R
10	...	38 26·35	...	39 37·9	R
11	...	38 26·43	...	39 38·0	R
13	...	38 26·44	..	39 39·0	R
17	...	38 26·45	...	39 39·0	R
18	...	38 26·39	...	39 37·9	R
19	...	38 26·45	...	39 38·6	R
20	...	38 26·27	...	39 38·1	M
22	...	38 26·33	...	39 38·6	R
23	...	38 26·40	...	39 38·1	R
24	...	38 26·39	...	39 38·3	R
25	...	38 26·39	...	39 36·5	R
Nov. 5	...	38 26·35	...	39 40·4	M
6	...	38 26·43	...	39 37·9	R
7	...	38 26·34	...	39 38·3	M
9	...	38 26·26	...	39 38·7	M
10	...	38 26·35	...	39 40·8	M
12	...	38 26·29	...	39 40·6	M
14	...	38 26·25	...	39 40·2	M
15	...	38 26·18	...	39 38·1	M

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
464		*Taylor* 10109.			
Sep. 28	...	21 40 38·58	...	137 50 3·9	M
29	...	40 38·73	...	50 2·9	M
Oct. 4	...	40 38·92	...	50 2·9	R
5	...	40 39·00	4	50 3·6	R
6	...	40 38·65	...	50 2·5	R
465		*Taylor* 10164.			
Sep. 26	...	21 48 14·51	...	143 0 51·4	M
27	...	48 14·52	3	0 55·5	M
Oct. 3	...	48 14·73	...	0 53·9	R
4	...	48 14·66	...	0 53·9	R
5	...	48 14·60	...	0 54·3	R
466		*Taylor* 10172.			
Sep. 28	...	21 49 19·97	...	127 48 27·3	M
29	...	49 20·04	...	48 28·4	M
Oct. 1	...	49 19·96	...	48 26·8	R
6	...	49 19·88	4	48 26·1	R
9	...	49 19·93	...	48 26·2	R
467		*Stone* 11555.			
Oct. 11	6·7	21 51 15·86	...	134 37 4·9	R
18	6·7	51 15·79	...	37 4·7	R
19	6·7	51 15·90	...	37 6·7	R
20	6·7	51 15·78	4	37 5·7	M
22	6·7	51 16·02	...	37 6·5	R
468		*Anon.*			
Sep. 12	...	21 52 5·66	5	132 36 2·7	M
15	8·0	52 5·39	...	36 1·9	M
17	8·5	52 5·54	...	36 2·4	M
469		*Taylor* 10192.			
Oct. 3	...	21 52 13·17	...	128 57 10·7	R
23	...	52 13·45	...	57 11·9	R
24	...	52 13·35	...	57 12·2	R
25	...	52 13·23	...	57 13·3	R
Nov. 6	...	52 13·13	...	57 12·1	R

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Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
470		*Stone* 11574.			
Sep. 29	6·0	21 53 59·64	...	127 6 58·2	M
Oct. 4	6·7	53 59·58	...	6 55·6	R
5	6·7	53 59·52	...	6 56·2	R
6	6·7	53 59·55	4	6 55·9	R
9	6·7	53 59·40	...	6 56·8	R
471		*Taylor* 10232.			
Sep. 26	6·0	21 57 57·35	...	117 23 18·9	M
28	6·0	57 57·36	...	23 19·3	M
Oct. 1	6·0	57 57·23	...	23 18·4	R
3	6·0	57 57·20	...	23 17·2	R
5	6·0	57 57·23	...	23 16·2	R
13	6·0	57 57·42	...	23 18·6	R
472		*Stone* 11601.			
Sep. 12	...	21 58 48·92	6	134 31 59·3	M
15	7·0	58 48·82	...	31 58·6	M
473		34 *Aquarii a*			
Oct. 18	...	21 59 46·37	...	90 53 15·2	R
19	...	59 46·33	...	53 16·6	R
20	...	59 46·31	...	53 16·3	M
22	...	59 46·33	...	53 16·4	R
23	...	59 46·42	...	53 14·3	R
24	...	59 46·34	...	53 15·7	R
25	...	59 46·35	...	53 16·8	R
Nov. 5	...	59 46·32	...	53 16·9	M
6	...	59 46·37	...	53 15·6	R
7	...	59 46·41	...	53 16·3	M
9	...	59 46·36	...	53 15·7	M
10	...	59 46·44	...	53 18·6	M
12	...	59 46·45	...	53 17·4	M
13	...	59 46·35	...	53 18·9	M
14	...	59 46·56	...	53 17·4	M
15	...	59 46·47	...	53 17·1	M
16	...	59 46·45	...	53 18·8	M
20	...	59 46·39	...	53 17·6	M
21	...	59 46·50	...	53 18·3	M
23	...	59 46·50	...	53 19·1	M
26	...	59 46·39	...	53 18·6	M

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
474		*Stone* 11610.			
Sep. 29	...	22 0 9·13	...	120 11 11·6	M
Oct. 4	...	0 8·94	...	11 10·1	R
6	...	0 9·14	...	11 9·6	R
9	...	0 9·01	5	11 9·2	R
11	...	0 9·08	...	11 10·8	R
475		43 *Aquarii θ*			
Oct. 11	...	22 10 39·49	...	98 21 55·9	R
13	...	10 39·43	...	21 56·1	R
17	...	10 39·44	...	21 56·1	R
18	...	10 39·47	...	21 55·4	R
19	...	10 39·47	...	21 55·9	R
20	...	10 39·52	...	21 57·0	M
22	...	10 39·52	...	21 56·3	R
23	...	10 39·44	...	21 55·1	R
24	...	10 39·48	...	21 54·4	R
25	...	10 39·52	...	21 57·1	R
Nov. 5	...	10 39·57	...	21 56·7	M
6	...	10 39·45	...	21 55·0	R
7	...	10 39·50	...	21 56·5	M
9	...	10 39·62	...	21 55·3	M
10	...	10 39·45	...	21 57·8	M
12	...	10 39·58	...	21 59·6	M
13	...	10 39·53	...	21 58·0	M
14	...	10 39·46	...	21 57·0	M
15	...	10 39·51	...	21 56·6	M
16	...	10 39·46	...	21 56·9	M
20	...	10 39·65	...	21 54·5	M
21	...	10 39·45	...	21 56·0	M
23	...	10 39·51	...	21 56·2	M
476		48 *Aquarii γ*			
Sep. 26	...	22 15 36·73	...	91 58 35·0	M
27	...	15 36·70	...	58 36·3	M
28	...	15 36·83	...	58 34·9	M
29	...	15 36·59	...	58 35·5	M
Oct. 3	...	15 36·73	...	58 33·2	R
4	...	15 36·72	...	58 33·5	R
5	...	15 36·73	...	58 33·2	R
6	...	15 36·70	...	58 34·1	R
8	...	15 36·68	...	58 33·9	R
9	...	15 36·72	...	58 33·7	R

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Separate Results of Madras Meridian Circle Observations in 1883.

Number and Date.	Magnitude.	Mean Right Ascension 1883. h. m. s.	No. of Wires.	Mean Polar Distance 1883. ° ′ ″	Observer.
477		73 *Aquarii* λ			
Sep. 24	...	22 46 30·40	...	98 12 7·8	M
25	...	46 30·66	...	12 5·3	M
Oct. 9	...	46 30·51	...	12 6·3	R
10	...	46 30·50	...	12 6·3	R
13	...	46 30·49	...	12 5·3	R
17	...	46 30·47	...	12 6·4	R
18	...	46 30·49	...	12 6·9	R
19	...	46 30·47	...	12 7·3	R
20	...	46 30·62	...	12 7·5	M
Nov. 26	...	46 30·51	...	12 10·0	M
29	...	46 30·47	...	12 4·0	M
30	...	46 30·47	...	12 7·7	M
Dec. 4	...	46 30·43	...	12 6·3	R
5	...	46 30·48	...	12 6·0	R
6	...	46 30·37	...	12 5·8	R
478		54 *Pegasi* a_2 *Markab.*			
Oct. 22	...	22 58 56·01	...	75 25 26·0	R
23	...	58 55·95	...	25 26·5	R
24	...	58 55·97	...	25 26·9	R
25	...	58 55·94	...	25 27·0	R
Nov. 13	...	58 55·84	...	25 29·6	M
14	...	58 55·90	...	25 29·1	M
15	...	58 55·03	...	25 28·1	M
16	...	58 55·85	...	25 31·2	M
Nov. 20	...	22 58 55·89	...	75 25 27·2	M
21	...	58 55·85	...	25 26·4	M
23	...	58 55·83	...	25 29·3	M
479		6 *Piscium* γ			
Nov. 26	...	23 11 5·82	...	87 21 26·5	M
27	...	11 6·05	...	21 25·0	M
29	...	11 5·88	...	21 22·3	M
30	...	11 5·94	...	21 24·9	M
Dec. 4	...	11 5·90	...	21 23·4	R
5	...	11 5·91	...	21 24·1	R
6	...	11 5·86	...	21 25·8	R
7	...	11 5·90	..	21 24·0	R
480		*R. P. L.* 158.			
Oct. 18	...	23 27 47·02	3	3 20 17·0	R
19	...	27 49·73	3	20 16·6	R
22	...	27 50·18	3	20 16·6	R
23	...	27 49·90	3	20 15·8	R
24	...	27 49·56	3	20 18·0	R
25	...	27 49·64	3	20 18·0	R
Nov. 9	...	27 50·12	3	20 16·8	M
12	...	27 51·09	3	20 15·5	M
13	...	27 50·42	3	20 17·0	M
14	...	27 49·10	3	20 17·6	M

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MEAN POSITIONS OF STARS

OBSERVED WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1883

REDUCED TO JANUARY 1 OF THAT YEAR

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Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
1	Stone 8	7·0	4	0	1	22·50	116	0	13·7	5	0·89
2	6 Ceti	4·9	...	0	5	18·41	106	6	37·5	5	0·91
3	Stone 63	6·3	...	0	7	48·44	116	56	12·0	5	0·90
4	Taylor 37	5·9	...	0	10	13·68	122	5	44·5	5	0·91
5	8 Ceti	3·6	...	0	13	27·81	99	28	20·0	7	0·96
6	Stone 109	7·1	5	0	14	18·77	126	33	10·4	5	0·89
7	Taylor 78	6·8	5	0	18	31·00	92	52	0·0	5	0·91
8	Stone 158	6·5	...	0	21	22·79	116	11	41·0	5	0·90
9	Taylor 101	5·9	...	0	22	40·15	130	33	44·6	5	0·93
10	Taylor 115	5·2	...	0	24	31·68	114	26	7·7	5	0·88
11	Stone 237	7·0	4	0	32	53·40	136	32	49·6	5	0·88
12	Stone 240	7·0	5	0	33	16·91	133	56	19·4	5	0·96
13	Taylor 181	6·4	...	0	34	16·83	135	26	24·7	1	0·84
14	Taylor 215	6·4	...	0	39	25·06	133	18	52·2	5	0·88
15	W. B. E. O. 658	9·1	1	0	39	36·26	88	55	54·4	1	0·92
16	63 Piscium δ	4·6	...	0	42	36·69	83	3	6·6	7	0·94
17	... ...	9·0	1	0	42	38·72	89	0	20·4	1	0·91
18	... ...	9·0	1	0	43	53·51	88	58	5·9	1	0·93
19	Taylor 252	6·7	...	0	44	34·42	134	1	58·7	5	0·95
20	Stone 342	5·8	...	0	46	55·90	114	38	37·3	5	0·88
21	Stone 365	6·3	...	0	50	14·91	118	24	34·4	5	0·90
22	R. P. L. 10	6·6	...	0	51	27·96	1	36	16·7	2	0·86
23	... ...	7·0	1	0	52	8·16	131	53	18·5	1	0·86
24	2 Ursæ Minoris	4·5	...	0	52	57·38	4	22	15·0	1	0·01
25	Stone 392	5·6	...	0	55	50·20	129	32	56·5	5	0·88
26	R. P. L. 14	6·2	...	0	56	36·82	3	28	41·6	1	0·99
27	Stone 407	5·9	...	0	57	32·66	137	1	37·4	5	0·90
28	30 Ceti	5·8	...	1	1	53·10	100	24	42·7	5	0·89
29	43 Andromedæ β	2·2	...	1	3	10·92	54	59	58·7	2	0·01
30	Taylor 391	6·6	...	1	6	51·47	121	25	19·1	5	0·89
31	... ...	8·5	...	1	9	4·03	145	51	44·7	1	0·86
32	... ...	9·0	...	1	10	7·75	124	38	59·5	2	0·00
33	Stone 489	6·7	...	1	10	57·78	132	37	39·3	5	0·96
34	... ...	8·5	4	1	13	7·73	130	43	13·8	4	0·71
35	Taylor 428	6·9	...	1	13	33·16	133	56	58·4	5	0·90

15—17—18.—Comparison stars for Mars in 1862.

22.—Groombridge 144.

26.—Groombridge 195.

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
1	Stone 8	+ 3·0684	− 0·0126	...	− 20·054	+ 0·011	...	...
2	6 Ceti	+ 3·0634	− 0·0064	− 0·008	− 20·048	+ 0·019	+ 0·26	3222
3	Stone 63	+ 3·0492	− 0·0127	...	− 20·042	+ 0·023	...	...
4	Taylor 37	+ 3·0350	− 0·0158	...	− 20·034	+ 0·027	...	...
5	8 Ceti	+ 3·0593	− 0·0023	− 0·003	− 20·019	+ 0·034	+ 0·03	14
6	Stone 109	+ 3·0105	− 0·0186	...	− 20·015	+ 0·035	...	...
7	Taylor 78	+ 3·0669	+ 0·0014	...	− 19·989	+ 0·044	...	...
8	Stone 158	+ 3·0110	− 0·0111	...	− 19·966	+ 0·049	...	...
9	Taylor 101	+ 2·9594	− 0·0205	...	− 19·956	+ 0·051	...	...
10	Taylor 115	+ 3·0074	− 0·0097	...	− 19·939	+ 0·055	...	...
11	Stone 237	+ 2·8705	− 0·0233	...	− 19·848	+ 0·069	...	...
12	Stone 240	+ 2·8859	− 0·0213	...	− 19·843	+ 0·069	...	...
13	Taylor 181	+ 2·8700	− 0·0223	− 0·002	− 19·829	+ 0·071	+ 0·05	Stone.
14	Taylor 215	+ 2·8564	− 0·0198	...	− 19·757	+ 0·079	...	...
15	W. B. E. O. 658 ...	+ 3·0767	+ 0·0046	...	− 19·753	+ 0·084	...	...
16	63 Piscium δ... ...	+ 3·1024	+ 0·0079	+ 0·004	− 19·709	+ 0·091	+ 0·04	85
17	... ...	+ 3·0767	+ 0·0047	...	− 19·706	+ 0·089	...	...
18	... ...	+ 3·0771	+ 0·0048	...	− 19·687	+ 0·092	...	...
19	Taylor 252	+ 2·8225	− 0·0194	...	− 19·675	+ 0·087	...	...
20	Stone 342	+ 2·9477	− 0·0078	...	− 19·633	+ 0·095	...	...
21	Stone 365	+ 2·9150	− 0·0095	...	− 19·574	+ 0·100	...	...
22	R. P. L. 10	+ 13·6992	+ 8·2321	+ 0·153	− 19·550	+ 0·453	+ 0·03	65
23	... ...	+ 2·8019	− 0·0167	...	− 19·537	+ 0·099	...	...
24	2 Ursæ Minoris ...	+ 7·0783	+ 1·3756	+ 0·068	− 19·521	+ 0·244	+ 0·01	92
25	Stone 392	+ 2·8060	− 0·0148	...	− 19·462	+ 0·106	...	...
26	R. P. L. 14	+ 8·4505	+ 2·1474	+ 0·054	− 19·445	+ 0·308	+ 0·02	95
27	Stone 407	+ 2·7158	− 0·0187	...	− 19·425	+ 0·106	..	...
28	30 Ceti	+ 3·0068	+ 0·0001	+ 0·009	− 19·327	+ 0·124	− 0·01	135
29	43 Andromedæ β ...	+ 3·3272	+ 0·0286	+ 0·014	− 19·297	+ 0·139	+ 0·08	140
30	Taylor 391 . . .	+ 2·8375	− 0·0092	...	− 19·206	+ 0·126	...	...
31	.. ..	+ 2·4871	− 0·0203	...	− 19·150	+ 0·115	...	...
32	... ...	+ 2·7940	− 0·0105	...	− 19·123	+ 0·130	...	...
33	Stone 489	+ 2·6974	− 0·0141	...	− 19·100	+ 0·127	...	...
34	... ...	+ 2·7114	− 0·0128	...	− 19·042	+ 0·131	...	...
35	Taylor 428 ...	+ 2·6659	− 0·0142	...	− 19·030	+ 0·130	...	...

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Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
36	R. P. L. 18	7·9	...	1	13	38·26	2	2	52·1	1	0·99
37	1 Urs. Min. α (*Polaris*) ...	2·2	...	1	15	50·44	1	18	54·4	14	0·30
38	45 Ceti θ^1	3·8	...	1	18	10·40	98	47	15·8	2	0·00
39	93 Piscium ρ	5·2	...	1	19	57·00	71	26	7·9	1	0·96
40	... ...	9·7	2	1	20	7·23	122	56	18·7	2	0·98
41	Taylor 487	6·2	...	1	24	51·91	116	48	46·4	5	0·88
42	99 Piscium η	3·7	...	1	25	13·35	75	15	27·9	4	0·99
43	Stone 596	7·8	...	1	25	30·56	128	23	39·5	5	0·55
44	Taylor 524	6·3	...	1	29	48·49	147	36	1·8	5	0·91
45	α Eridani (*Achernar*) ...	1·0	...	1	33	21·53	147	49	54·4	1	0·99
46	... ...	7·0	4	1	33	27·39	138	31	50·6	4	0·00
47	106 Piscium ν	4·7	...	1	35	20·52	85	6	18·0	1	0·99
48	... ...	8·0	4	1	36	20·07	149	14	24·8	4	0·71
49	110 Piscium ο	4·4	...	1	39	12·89	81	25	55·1	10	0·91
50	Taylor 578	5·5	...	1	40	6·81	96	19	6·4	5	0·91
51	Stone 704	8·0	...	1	41	46·12	133	54	16·9	5	0·01
52	Taylor 616	6·1	...	1	46	22·07	140	47	8·4	5	0·89
53	6 Arietis β	2·8	...	1	48	10·61	69	45	51·7	13	0·95
54	Taylor 626	6·3	...	1	48	20·94	129	10	21·1	5	0·01
55	... ...	8·0	3	1	53	53·44	127	35	3·7	5	0·19
56	Stone 812	6·0	...	1	57	20·50	105	52	13·7	4	0·88
57	Stone 824	7·0	...	1	59	40·47	134	4	5·9	3	0·01
58	13 Arietis α	2·0	...	2	0	34·70	67	5	29·9	17	0·26
59	Stone 834	7·3	...	2	1	18·98	142	33	4·5	5	0·92
60	Stone 850	7·5	...	2	3	48·47	126	22	45·3	4	0·92
61	Stone 870	7·5	...	2	5	46·73	128	55	5·5	5	0·91
62	... ...	7·7	2	2	8	5·55	131	48	51·3	2	0·00
63	... ...	8·5	4	2	9	23·64	124	51	43·1	5	0·36
64	Taylor 750	6·1	...	2	9	47·80	131	42	43·9	1	0·01
65	67 Ceti	5·5	...	2	11	8·75	96	57	43·6	3	0·93
66	Stone 911	7·1	...	2	11	58·76	143	25	54·4	5	0·92
67	... ...	7·0	2	2	14	28·61	132	33	30·8	2	0·01
68	Stone 935	7·3	...	2	16	3·49	140	50	21·2	5	0·94
69	... ...	8·0	1	2	18	16·50	150	57	53·2	1	0·01
70	Stone 955	7·3	...	2	18	48·67	150	17	34·1	5	0·92

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
36	R. P. L. 18	+ 14·8806	+ 6·8872	...	− 19·028	+ 0·693	...	...
37	1 Ursæ Minoris α ...	+ 21·9951	+ 16·3900	+ 0·108	− 18·966	+ 1·050	+ 0·00	102
38	45 Ceti θ¹	+ 3·0032	+ 0·0018	− 0·007	− 18·899	+ 0·154	+ 0·20	184
39	93 Piscium ρ	+ 3·2259	+ 0·0163	− 0·006	− 18·846	+ 0·168	− 0·03	185
40	... ...	+ 2·7757	− 0·0086	...	− 18·841	+ 0·146	...	...
41	Taylor 487	+ 2·8279	− 0·0055	...	− 18·695	+ 0·157	...	...
42	99 Piscium η	+ 3·2001	+ 0·0141	− 0·000	− 18·683	+ 0·177	+ 0·00	203
43	Stone 596	+ 2·6862	− 0·0100	...	− 18·674	+ 0·150	...	...
44	Taylor 524	+ 2·2678	− 0·0140	...	− 18·533	+ 0·134	...	...
45	α Eridani	+ 2·2303	− 0·0128	+ 0·008	− 18·413	+ 0·137	+ 0·07	Stone
46	... ...	+ 2·4724	− 0·0120	...	− 18·410	+ 0·151	...	...
47	106 Piscium ν ...	+ 3·1136	+ 0·0091	− 0·003	− 18·344	+ 0·191	− 0·01	228
48	... ...	+ 2·1558	− 0·0114	...	− 18·308	+ 0·136	...	...
49	110 Piscium ο ...	+ 3·1569	+ 0·0111	+ 0·003	− 18·204	+ 0·200	− 0·06	232
50	Taylor 578	+ 3·0097	+ 0·0039	...	− 18·171	+ 0·193	...	...
51	Stone 704 ...	+ 2·5195	− 0·0095	...	− 18·109	+ 0·165	...	...
52	Taylor 616	+ 2·3390	− 0·0098	...	− 17·982	+ 0·160	...	...
53	6 Arietis β ...	+ 3·2965	+ 0·0183	+ 0·005	− 17·861	+ 0·226	+ 0·10	252
54	Taylor 626	+ 2·5764	− 0·0073	...	− 17·855	+ 0·179	...	...
55	... ...	+ 2·5819	− 0·0062	...	− 17·628	+ 0·187	...	...
56	Stone 812	+ 2·8862	+ 0·0010	...	− 17·482	+ 0·214	...	...
57	Stone 824	+ 2·4269	− 0·0067	...	− 17·381	+ 0·183	...	...
58	13 Arietis α	+ 3·3561	+ 0·0203	+ 0·013	− 17·342	+ 0·252	+ 0·13	287
59	Stone 834	+ 2·1910	− 0·0065	...	− 17·310	+ 0·168	...	...
60	Stone 850	+ 2·5658	− 0·0049	...	− 17·198	+ 0·199	...	...
61	Stone 870	+ 2·5092	− 0·0051	...	− 17·108	+ 0·198	...	...
62	... ...	+ 2·4383	− 0·0053	...	− 17·002	+ 0·195	...	...
63	.. ..	+ 2·5741	− 0·0040	...	− 16·943	+ 0·207	...	...
64	Taylor 750	+ 2·4330	− 0·0051	...	− 16·922	+ 0·197	...	...
65	67 Ceti	+ 2·9840	+ 0·0049	+ 0·004	− 16·859	+ 0·242	+ 0·11	321
66	Stone 911	+ 2·0909	− 0·0040	...	− 16·819	+ 0·173	...	...
67	... ...	+ 2·3926	− 0·0046	...	− 18·699	+ 0·200	...	...
68	Stone 935	+ 2·1541	− 0·0040	...	− 16·622	+ 0·182	...	...
69	... ...	+ 1·7058	+ 0·0037	...	− 16·513	+ 0·148	...	...
70	Stone 955	+ 1·7383	+ 0·0029	...	− 16·487	+ 0·151	...	...

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Mean Positions of Stars for 1883, *January* 1*st.*

Number	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
71	... ...	7·5	2	2	19	52·27	124	51	27·9	2	0·00
72	72 Ceti ζ^2	4·4	...	2	21	56·29	82	3	52·4	1	1·00
73	... ...	7·0	3	2	22	8·49	131	53	37·3	4	0·49
74	... ...	8·0	...	2	23	18·01	135	34	15·8	1	0·01
75	Stone 994	7·2	...	2	24	31·01	126	27	49·7	1	0·00
76	Stone 1000	6·4	...	2	25	20·71	154	49	24·1	5	0·92
77	Lacaille 782	6·7	...	2	26	46·94	148	19	46·3	1	0·01
78	R. P. L. 26	8·0	...	2	27	31·12	3	27	48·7	2	0·67
79	... ...	7·7	3	2	28	16·63	149	23	20·7	3	0·01
80	77 Ceti	5·6	...	2	28	56·16	98	22	16·1	5	0·94
81	... ...	8·0	...	2	33	12·16	137	9	14·5	5	0·05
82	86 Ceti γ^2	3·6	...	2	37	14·27	87	15	29·0	2	0·99
83	Taylor 916	6·1	...	2	37	27·05	128	53	1·8	5	0·01
84	... ...	7·7	1	2	37	31·16	136	6	9·6	1	0·00
85	Taylor 926	7·5	...	2	39	2·37	115	59	32·7	5	0·92
86	Stone 1144	7·0	...	2	42	15·04	131	27	2·0	5	0·97
87	... ...	7·7	1	2	42	49·02	149	53	8·7	1	0·00
88	... ...	8·0	...	2	43	47·79	138	24	5·5	5	0·05
89	43 Arietis σ	5·5	...	2	45	1·96	75	24	2·0	7	0·96
90	... ...	8·5	...	2	46	1·22	132	42	37·4	5	0·03
91	Stone 1170	7·1	...	2	46	38·45	131	26	44·8	5	0·94
92	... ...	8·5	...	2	47	2·31	133	18	50·8	2	0·01
93	Stone 1192	8·0	...	2	49	36·37	135	5	2·8	5	0·97
94	Stone 1208	6·6	...	2	50	59·00	146	21	23·5	4	0·05
95	Stone 1212	8·0	...	2	51	42·14	141	44	2·3	4	0·96
96	Stone 1223	7·0	...	2	52	28·65	154	28	45·5	1	0·99
97	Taylor 1024	7·4	...	2	55	47·17	132	20	18·5	3	0·01
98	Taylor 1027	6·1	...	2	56	34·74	118	32	26·1	5	0·94
99	... ...	8·5	...	2	57	42·15	132	17	54·2	4	0·05
100	Stone 1263	6·2	...	2	58	55·64	137	26	2·9	5	0·97
101	Stone 1264	8·0	...	2	59	13·87	134	30	42·2	4	0·02
102	Taylor 1042	6·9	...	2	59	43·54	134	21	21·4	5	0·02
103	R. P. L. 33	5·8	...	3	4	48·88	5	30	24·5	2	0·95
104	57 Arietis δ	4·5	...	3	4	56·32	70	42	59·3	7	0·96
105	Stone 1342	7·3	...	3	9	50·79	130	41	31·7	2	0·00

78.—Carrington 352.

103.—Groombridge 595.

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
71	... ...	+ 2·3100	− 0·0040	...	− 16·434	+ 0·200	...	...
72	73 Ceti ζ^3	+ 3·1805	+ 0·0117	+ 0·001	− 16·330	+ 0·276	+ 0·00	347
73	... ...	+ 2·3753	− 0·0088	...	− 16·320	+ 0·208	...	...
74	... ...	+ 2·2740	− 0·0035	...	− 16·260	+ 0·201	...	...
75	Stone 994	+ 2·4899	− 0·0028	...	− 16·197	+ 0·222	...	...
76	Stone 1000	+ 1·3873	+ 0·0138	...	− 16·155	+ 0·127	...	...
77	Lacaille 782	+ 1·7773	+ 0·0026	...	− 16·079	+ 0·161	...	...
78	R. P. L. 26	+ 16·3288	+ 3·7976	...	− 16·038	+ 1·436	...	...
79	... ...	+ 1·7104	+ 0·0047	...	− 16·002	+ 0·157	...	...
80	77 Ceti	+ 2·9533	+ 0·0051	...	− 15·966	+ 0·267	...	...
81	... ...	+ 2·1790	− 0·0020	...	− 15·739	+ 0·204	...	...
82	86 Ceti γ^2	+ 3·1130	+ 0·0094	− 0·011	− 15·516	+ 0·294	+ 0·16	383
83	Taylor 916	+ 2·3886	− 0·0018	...	− 15·505	+ 0·228	...	...
84	... ...	+ 2·1908	− 0·0014	...	− 15·500	+ 0·209	...	...
85	Taylor 926	+ 2·6554	+ 0·0003	...	− 15·416	+ 0·254	...	...
86	Stone 1144	+ 2·3045	− 0·0015	...	− 15·234	+ 0·225	...	...
87	... ...	+ 1·5691	+ 0·0061	...	− 15·203	+ 0·156	...	...
88	... ...	+ 2·0855	− 0·0004	...	− 15·147	+ 0·206	...	...
89	43 Arietis σ	+ 3·3020	+ 0·0150	− 0·000	− 15·075	+ 0·323	+ 0·04	400
90	... ...	+ 2·2545	− 0·0009	...	− 15·018	+ 0·224	...	...
91	Stone 1170	+ 2·2876	− 0·0010	...	− 14·983	+ 0·227	...	...
92	... ...	+ 2·2328	− 0·0008	...	− 14·959	+ 0·223	...	...
93	Stone 1192	+ 2·1682	− 0·0004	...	− 14·809	+ 0·219	...	...
94	Stone 1208	+ 1·7087	+ 0·0052	...	− 14·727	+ 0·175	...	...
95	Stone 1212	+ 1·9181	+ 0·0020	...	− 14·684	+ 0·196	...	...
96	Stone 1223	+ 1·1582	+ 0·0206	...	− 14·638	+ 0·121	...	...
97	Taylor 1024	+ 2·2270	0·0000	...	− 14·438	+ 0·233	...	...
98	Taylor 1027	+ 2·5659	+ 0·0007	...	− 14·391	+ 0·266	...	...
99	... ...	+ 2·2204	+ 0·0001	...	− 14·322	+ 0·232	...	...
100	Stone 1263	+ 2·0481	+ 0·0011	...	− 14·247	+ 0·217	...	...
101	Stone 1264	+ 2·1461	+ 0·0005	...	− 14·228	+ 0·226	...	...
102	Taylor 1042	+ 2·1491	+ 0·0005	...	− 14·198	+ 0·227	...	...
103	R. P. L. 33	+ 13·0815	+ 1·6154	+ 0·045	− 13·879	+ 1·383	+ 0·12	402
104	57 Arietis δ	+ 3·4102	+ 0·0171	+ 0·010	− 13·871	+ 0·364	− 0·01	446
105	Stone 1342	+ 2·2253	+ 0·0010	...	− 13·558	+ 0·245	...	...

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Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*		′	″	...	
106	... ...	9·0	...	3	12	17·23	126	8	37·8	3	0·01
107	33 Persei *a*	1·9	...	3	15	58·29	40	33	23·5	3	0·05
108	1 Tauri *o*, Var. 5	Var.	...	3	18	31·06	81	23	0·7	6	0·37
109	... ...	8·0	3	3	18	35·65	134	32	55·3	5	0·03
110	Stone 1414	7·2	...	3	19	17·12	130	29	29·3	3	0·00
111	... ...	7·7	2	3	26	30·25	135	8	2·2	3	0·04
112	18 Eridani *e*	3·7	...	3	27	25·15	99	51	20·0	6	0·03
113	R. P. L. 34	5·9	...	3	28	19·44	3	43	29·0	4	0·50
114	Stone 1522	7·8	...	3	34	39·71	136	37	22·6	2	0·00
115	Stone 1526	8·0	...	3	35	9·27	126	19	10·3	5	0·01
116	25 Tauri *η* (*Alcyone*) ...	3·0	...	3	40	31·81	66	15	27·8	4	0·25
117	... ...	8·3	2	3	44	17·92	136	26	47·0	4	0·04
118	... ...	9·0	4	3	49	49·40	126	22	56·1	5	0·02
119	37 Tauri A^1	4·4	...	3	57	46·71	68	14	20·7	16	0·05
120	R. P. L. 35	6·7	...	4	0	13·55	4	45	17·8	2	0·00
121	38 Eridani o^1	4·1	...	4	6	9·25	97	8	35·3	1	0·03
122	*a* Reticuli	3·3	...	4	12	55·28	152	46	1·2	5	0·11
123	54 Tauri *γ*	3·9	...	4	13	8·11	74	39	22·0	13	0·03
124	Taylor 1553	8·3	...	4	20	49·49	134	17	23·0	4	0·03
125	74 Tauri *e*	3·7	...	4	21	47·09	71	4	49·4	2	0·02
126	Taylor 1595	6·9	...	4	27	0·28	131	25	33·3	4	0·01
127	87 Tauri *a* (*Aldebaran*) ...	1·0	...	4	29	12·46	73	43	37·5	8	0·09
128	*a* Doradûs	3·1	...	4	31	28·21	145	17	13·2	5	0·11
129	Stone 1991	7·3	...	4	32	31·02	135	22	30·1	4	0·01
130	... ...	7·0	5	4	45	26·49	131	47	22·9	5	0·08
131	3 Aurigæ *i*	2·7	...	4	49	22·43	57	1	15·9	9	0·08
132	R. P. L. 37	7·0	...	4	50	27·71	4	11	49·5	12	0·09
133	7 Aurigæ *e*, Var. 1 ...	Var.	...	4	53	34·38	46	21	3·7	5	0·11
134	Stone 2191	8·0	...	4	56	19·73	131	13	19·8	5	0·06
135	R. P. L. 39	7·0	...	5	4	14·00	4	26	3·0	17	0·22
136	13 Aurigæ *a* (*Capella*) ...	0·2	...	5	8	2·65	44	7	19·6	9	0·09
137	19 Orionis *β* (*Rigel*) ...	0·3	...	5	8	54·85	98	20	16·2	8	0·10
138	112 Tauri *β*	1·9	...	5	18	53·79	61	29	34·9	4	0·04
139	R. P. L. 40	6·0	...	5	24	37·77	4	51	57·9	6	0·21
140	34 Orionis *δ*, Var. 1 ...	Var.	...	5	26	1·88	90	23	12·9	1	0·05

113.—Groombridge 642.
120.—Groombridge 750.
139.—Groombridge 944.

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
106	... ...	+ 0·3704	+ 0·0009	...	− 13·400	+ 0·260	...	...
107	33 Persei α	+ 4·2512	+ 0·0483	+ 0·002	− 13·158	+ 0·472	+ 0·03	464
108	1 Tauri o	+ 3·2267	+ 0·0115	− 0·005	− 12·989	+ 0·364	+ 0·07	477
109	... ...	+ 2·0695	+ 0·0021	...	− 12·964	+ 0·236	...	..
110	Stone 1414	+ 2·2002	+ 0·0016	...	− 12·938	+ 0·251	...	...
111	... ...	+ 2·0193	+ 0·0028	...	− 12·449	+ 0·236	...	...
112	18 Eridani ε	+ 2·8897	+ 0·0055	− 0·068	− 12·386	+ 0·336	− 0·01	493
113	R. P. L. 34	+ 19·2728	+ 3·2566	+ 0·136	− 12·324	+ 2·222	+ 0·06	Gr
114	Stone 1522	+ 1·9325	+ 0·0088	...	− 11·381	+ 0·232	...	...
115	Stone 1526	+ 2·2795	+ 0·0022	...	− 11·847	+ 0·273	...	...
116	25 Tauri η	+ 3·5548	+ 0·0177	− 0·000	− 11·465	+ 0·480	+ 0·04	521
117	... ...	+ 1·9053	+ 0·0042	...	− 11·192	+ 0·235	...	...
118	... ...	+ 2·2420	+ 0·0027	...	− 10·788	+ 0·280	...	...
119	37 Tauri A¹	+ 3·5319	+ 0·0153	+ 0·005	− 10·195	+ 0·447	+ 0·06	554
120	R. P. L. 35	− 16·9992	+ 1·8057	+ 0·002	− 10·009	+ 2·152	− 0·02	750
121	38 Eridani o¹	+ 2·9250	+ 0·0058	− 0·001	− 9·557	+ 0·379	− 0·09	568
122	α Reticuli	+ 0·7520	+ 0·0216	+ 0·005	− 9·033	+ 0·102	− 0·07	Stone
123	54 Tauri γ	+ 3·4000	+ 0·0115	+ 0·007	− 9·015	+ 0·446	+ 0·03	583
124	Taylor 1553	+ 1·8883	+ 0·0046	...	− 8·410	+ 0·254	...	...
125	74 Tauri ε	+ 3·4892	+ 0·0120	+ 0·007	− 8·334	+ 0·466	+ 0·03	609
126	Taylor 1595	+ 1·9884	+ 0·0041	...	− 7·915	+ 0·269	...	...
127	87 Tauri α	+ 3·4323	+ 0·0105	+ 0·004	− 7·739	+ 0·464	+ 0·18	630
128	α Doradûs	+ 1·2848	+ 0·0099	...	− 7·556	+ 0·176	...	...
129	Stone 1991	+ 1·8153	+ 0·0048	...	− 7·470	+ 0·249	...	...
130	... ...	+ 1·9401	+ 0·0041	...	− 6·409	+ 0·271	...	...
131	3 Aurigæ ι	+ 3·8969	+ 0·0144	+ 0·001	− 6·062	+ 0·544	+ 0·00	677
132	R. P. L. 37	+ 20·4576	+ 1·4960	...	− 5·991	+ 2·851	...	...
133	7 Aurigæ ε	+ 4·2945	+ 0·0197	− 0·002	− 5·731	+ 0·602	+ 0·01	690
134	Stone 2191	+ 1·9460	+ 0·0089	...	− 5·500	+ 0·275	...	...
135	R. P. L. 39	+ 19·8047	+ 1·1015	...	− 4·831	+ 2·805	...	...
136	13 Aurigæ α	+ 4·4156	+ 0·0173	+ 0·008	− 4·508	+ 0·629	+ 0·42	722
137	19 Orionis β	+ 2·8812	+ 0·0040	− 0·001	− 4·433	+ 0·412	− 0·01	736
138	112 Tauri β	+ 3·7869	+ 0·0062	+ 0·001	− 3·577	+ 0·545	+ 0·18	756
139	R. P. L. 40	+ 18·5835	+ 0·5958	...	− 3·083	+ 2·680	...	...
140	34 Orionis δ	+ 3·0634	+ 0·0038	− 0·001	− 2·962	+ 0·443	+ 0·01	787

118.—Proper motions from *Greenwich Catalogue*, 1880.

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Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
141	11 Leporis *a*	2·7	...	5	27	34·23	107	54	25·7	2	0·07
142	R. P. L. 41	7·5	...	5	29	13·78	4	44	59·2	8	0·57
143	R. P. L. 42...	7·9	...	5	36	37·99	2	40	52·8	9	0·07
144	53 Orionis *κ*	2·2	...	5	42	12·45	99	42	46·3	4	0·07
145	33 Aurigæ *δ*	3·8	...	5	49	53·55	35	43	33·5	5	0·11
146	R. P. L. 43	6·6	...	6	0	28·21	3	14	15·4	9	0·31
147	7 Geminorum *η*	3·5	...	6	7	48·87	67	27	37·1	10	0·10
148	31 Geminor *ξ*	3·4	...	6	38	43·35	76	58	46·1	10	0·13
149	51 Cephei (*Hev.*)	5·3	...	6	45	17·33	2	46	26·2	10	0·12
150	... ... (*2nd Star*)...	9·5	4	6	48	35·47	70	33	38·0	4	0·11
151	W. B. N. VI. 1448 ...	9·0	5	6	49	45·81	62	3	39·3	5	0·11
152	22 Canis Majoris	3·5	...	6	57	3·56	117	46	5·3	5	0·11
153	3 Canis Minoris *β* ...	3·1	...	7	20	48·35	81	28	31·9	10	0·12
154	77 Geminorum *κ*	1·1	...	7	37	22·89	65	19	21·3	5	0·15
155	W. B. E. VII. 1127 ...	9·0	5	7	38	32·60	81	9	24·6	5	0·12
156	*ξ* Argûs	3·4	...	7	44	22·49	114	33	59·1	10	0·14
157	R. P. L. 48	7·4	...	7	46	44·85	3	58	3·8	5	0·64
158	Lalande 16364	8·0	5	8	15	22·48	76	0	18·2	5	0·10
159	R. P. L. 53	7·7	...	8	20	38·22	4	32	8·7	5	0·68
160	Lalande 16797	8·0	5	8	27	6·61	76	3	3·5	5	0·11
161	R. P. L. 55	7·5	...	8	31	31·92	5	40	55·7	3	0·77
162	43 Cancri *γ*	4·8	...	8	36	30·77	68	6	42·3	10	0·14
163	R. P. L. 60	7·0	...	8	50	44·02	5	21	10·9	1	0·74
164	W. B. E. IX. 78	9·0	5	9	6	31·26	77	16	15·8	5	0·12
165	*ι* Argûs	2·5	...	9	13	57·46	148	47	6·6	10	0·21
166	Lalande 18405	8·0	5	9	14	35·46	77	32	44·0	5	0·13
167	W. B. E. IX. 270	9·0	5	9	14	55·42	77	15	40·3	5	0·14
168	*κ* Argûs	2·7	...	9	18	29·19	144	30	40·9	5	0·14
169	R. P. L. 62	8·1	...	9	21	24·45	2	21	32·2	2	0·70
170	Lalande 19559	7·0	5	9	53	48·60	109	47	50·9	5	0·14
171	Lalande 19846	8·0	5	10	5	40·85	107	3	30·1	5	0·14
172	33 Ursæ Majoris *λ* ...	3·6	...	10	10	1·86	46	30	6·0	1	0·15
173	W. B. E. X. 228	9·0	5	10	15	3·03	104	0	29·4	5	0·15
174	Lalande 20089	7·5	5	10	15	10·54	104	54	4·2	5	0·15
175	... ...	9·7	5	10	16	2·01	84	34	2·6	5	0·28

150.—Comparison star for Hestia in 1882. 151.—Comparison star for Sylvia in 1882.
155.—Comparison star for Camilla in 1882.
158—160—164—166—167—170—171—173—174.—Comparison stars for Comet 1882, A.
163.—Carrington 1286. 175.—Comparison star for Asia in 1883.

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
141	11 Leporis α	+ 2·6446	+ 0·0029	− 0·001	− 2·828	+ 0·383	− 0·01	796
142	R. P. L. 41	+ 19·0176	+ 0·5444	...	− 2·684	+ 2·750	...	...
143	R. P. L. 42	+ 31·4697	+ 1·2560	...	− 2·041	+ 4·567	...	...
144	53 Orionis κ	+ 2·8441	+ 0·0027	− 0·002	− 1·555	+ 0·414	− 0·00	844
145	33 Aurigæ δ	+ 4·9293	+ 0·0061	+ 0·007	− 0·885	+ 0·718	+ 0·12	852
146	R. P. L. 43	+ 26·7050	− 0·0260	...	+ 0·041	+ 3·896	...	...
147	7 Geminorum η ...	+ 3·6269	+ 0·0007	− 0·005	+ 0·682	+ 0·529	+ 0·00	909
148	31 Geminorum ξ ...	+ 3·3772	− 0·0017	− 0·009	+ 3·373	+ 0·485	+ 0·20	989
149	51 Cephei (*Hev.*) ...	+ 30·1274	− 2·2654	− 0·040	+ 3·937	+ 4·307	+ 0·05	Gr.
150	... ... (*2nd Star*)...	+ 3·5336	− 0·0038	...	+ 4·220	+ 0·502	...	...
151	W. B. N. VI. 1448 ...	+ 3·7647	− 0·0060	...	+ 4·320	+ 0·535	...	...
152	22 Canis Majoris ...	+ 2·3901	+ 0·0013	− 0·002	+ 4·941	+ 0·336	+ 0·01	1027
153	3 Canis Minoris β ...	+ 3·2605	− 0·0041	− 0·004	+ 6·924	+ 0·444	+ 0·03	1079
154	77 Geminorum κ ...	+ 3·7274	− 0·0128	− 0·048	+ 8·329	+ 0·491	+ 0·05	1112
155	W. B. E. VII. 1127 ...	+ 3·2614	− 0·0053	...	+ 8·359	+ 0·429	...	...
156	ξ Argûs	+ 2·5235	+ 0·0008	− 0·001	+ 8·820	+ 0·327	− 0·02	1132
157	R. P. L. 48	+ 20·2936	− 2·3725	...	+ 9·006	+ 2·640	...	...
158	Lalande 16364 ...	+ 3·3491	− 0·0091	...	+ 11·169	+ 0·401	...	...
159	R. P. L. 53	+ 16·8502	− 2·1717	...	+ 11·548	+ 2·004	...	...
160	Lalande 16797 ...	+ 3·3383	− 0·0097	...	+ 12·007	+ 0·392	...	...
161	R. P. L. 55	+ 13·6770	− 1·4659	...	+ 12·314	+ 1·569	...	...
162	43 Cancri γ	+ 3·4890	− 0·0143	− 0·009	+ 12·655	+ 0·390	+ 0·03	1230
163	R. P. L. 60	+ 13·5605	− 1·7011	...	+ 13·595	+ 1·448	..	...
164	W. B. E. IX. 78 ...	+ 3·2798	− 0·0102	...	+ 14·578	+ 0·323	...	...
165	ι Argûs	+ 1·6102	− 0·0022	...	+ 15·017	+ 0·150	...	...
166	Lalande 18405 ...	+ 3·2674	− 0·0103	...	+ 15·054	+ 0·310	...	...
167	W. B. E. IX. 270 ...	+ 3·2717	− 0·0104	..	+ 15·073	+ 0·310	...	...
168	κ Argûs	+ 1·8576	+ 0·0027	...	+ 15·277	+ 0·169	...	...
169	R. P. L. 62	+ 23·7805	− 8·0997	...	+ 15·441	+ 2·206	...	...
170	Lalande 19559 ...	+ 2·8205	+ 0·0039	...	+ 17·090	+ 0·209	...	...
171	Lalande 19846 ...	+ 2·8761	+ 0·0035	...	+ 17·610	+ 0·193	...	...
172	33 Ursæ Majoris λ ...	+ 3·6579	− 0·0386	− 0·017	+ 17·789	+ 0·240	+ 0·06	1421
173	W. B. E. X. 228 ...	+ 2·9249	+ 0·0028	...	+ 17·987	+ 0·181	...	...
174	Lalande 20089 ...	+ 2·9152	+ 0·0031	...	+ 17·992	+ 0·180	...	...
175	... ...	+ 3·1281	− 0·0067	...	+ 18·025	+ 0·193	...	...

149.—Proper motions from *Greenwich Catalogue*, 1880.

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Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
176	Lalande 20205	8·0	3	10	19	29·37	84	50	7·8	5	0·27
177	Lalande 20521	6·7	5	10	30	28·06	99	58	33·9	5	0·15
178	Yarnall 4420	7·0	5	10	30	42·70	101	36	8·6	5	0·15
179	58 Leonis *d*	5·0	...	10	54	31·04	85	45	16·3	10	0·18
180	70 Leonis θ	3·5	...	11	8	5·97	73	55	52·0	5	0·18
181	84 Leonis τ	5·1	...	11	21	55·21	86	29	53·5	10	0·22
182	... ...	9·5	5	11	22	33·38	92	38	7·4	5	0·27
183	R. P. L. 82	7·0	...	11	26	38·94	3	44	15·7	15	0·45
184	R. P. L. 87	8·0	...	11	53	30·94	2	21	15·1	4	0·90
185	8 Virginis π	4·4	...	11	54	52·59	82	44	0·1	10	0·27
186	R. P. L. 97	7·2	...	12	37	34·31	5	42	52·0	3	0·91
187	R. P. L. 98	6·6	...	12	48	7·98	5	56	45·1	2	0·92
188	R. P. L. 99	5·6	...	12	48	16·20	5	57	4·6	2	0·97
189	77 Ursæ Majoris ε ...	1·8	...	12	48	52·59	33	24	17·7	5	0·26
190	43 Virginis δ	3·7	...	12	49	42·64	85	57	57·2	20	0·30
191	47 Virginis ε	3·0	...	12	56	21·16	78	24	42·2	30	0·32
192	R. P. L. 100	8·0	...	13	0	26·77	3	29	7·4	4	0·71
193	51 Virginis θ	4·4	...	13	3	53·52	94	54	48·8	11	0·35
194	R. P. L. 101	7·5	...	13	7	6·31	1	43	20·6	1	0·86
195	79 Virginis ζ	3·5	...	13	28	44·08	89	59	52·2	10	0·30
196	4 Bootis τ	4·5	...	13	41	42·10	71	57	31·2	10	0·28
197	85 Ursæ Majoris η ...	2·0	...	13	42	55·69	40	6	6·4	10	0·35
198	8 Bootis η	2·9	...	13	49	0·73	71	0	56·9	10	0·32
199	... ...	8·5	5	13	50	24·51	142	5	19·6	5	0·28
200	R. P. L. 108	7·8	...	14	1	29·77	3	40	55·6	1	0·99
201	Taylor 6609	7·2	...	14	5	40·83	131	5	32·7	5	0·32
202	Stone 7816—2*nd*	6·5	...	14	12	48·96	132	31	13·2	5	0·33
203	... ...	9·0	...	14	13	8·18	151	0	41·2	1	0·31
204	Stone 7826	6·9	...	14	14	9·36	156	6	31·8	2	0·30
205	... ...	7·0	3	14	21	19·61	150	19	32·5	3	0·34
206	... ...	8·9	5	14	21	30·45	150	17	33·2	5	0·33
207	Stone 7897	7·3	...	14	23	7·93	129	57	14·5	2	0·30
208	Stone 7947	7·1	...	14	29	31·32	157	41	41·6	2	0·30
209	Taylor 6811	7·8	...	14	30	6·60	132	36	5·4	5	0·32
210	Stone 7969	7·8	...	14	32	17·10	129	3	27·1	2	0·35

176.—Comparison star for Asia in 1883.
177—178.—Comparison stars for Comet 1882, A.
182.—Comparison star for Ariadne in 1883.
188.—Groombridge 1940. 194.—Groombridge 2006.
199.—Comparison star for Niobe in 1883.
200.—Groombridge 2099.

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
176	Lalande 20205 ...	+ 3·1237	− 0·0056	...	+ 18·155	+ 0·182	...	...
177	Lalande 20521 ...	+ 2·9828	+ 0·0019	...	+ 18·542	+ 0·158	...	...
178	Yarnall 4420 ...	+ 2·9681	+ 0·0027	...	+ 18·551	+ 0·157	...	...
179	58 Leonis *d*	+ 3·1003	− 0·0039	− 0·002	+ 19·241	+ 0·120	+ 0·01	1526
180	70 Leonis θ	+ 3·1588	− 0·0098	− 0·006	+ 19·542	+ 0·096	+ 0·06	1548
181	84 Leonis τ	+ 3·0859	− 0·0020	− 0·001	+ 19·777	+ 0·066	+ 0·01	1570
182	... ...	+ 3·0623	+ 0·0005	...	+ 19·786	+ 0·065	...	...
183	R. P. L. 82	+ 6·0399	− 1·3276	...	+ 19·841	+ 0·119	...	...
184	R. P. L. 87	+ 3·9924	− 1·1600	...	+ 20·046	+ 0·007	...	...
185	8 Virginis π	+ 3·0761	− 0·0023	− 0·003	+ 20·048	+ 0·002	+ 0·02	1618
186	R. P. L. 97	+ 0·8920	+ 0·1284	...	+ 19·785	− 0·030	...	...
187	R. P. L. 98	+ 0·3962	+ 0·2146	− 0·017	+ 19·613	− 0·020	− 0·02	1730
188	R. P. L. 99	+ 0·3913	+ 0·2146	− 0·020	+ 19·610	− 0·020	− 0·02	1731
189	77 Ursæ Majoris ε ...	+ 2·6433	− 0·0273	+ 0·012	+ 19·599	− 0·089	+ 0·02	1722
190	43 Virginis δ ...	+ 3·0521	+ 0·0025	− 0·034	+ 19·585	− 0·103	+ 0·05	1723
191	47 Virginis ε ...	+ 3·0056	− 0·0007	− 0·019	+ 19·451	− 0·114	− 0·03	1735
192	R. P. L. 100	− 2·6502	+ 1·2981	...	+ 19·360	+ 0·093	...	...
193	51 Virginis θ ...	+ 3·1040	+ 0·0078	− 0·004	+ 19·279	− 0·132	+ 0·04	1747
194	R. P. L. 101	− 9·7598	+ 7·0045	...	+ 19·200	+ 0·403	...	...
195	99 Virginis ζ ...	+ 3·0723	+ 0·0064	− 0·021	+ 18·570	− 0·176	− 0·06	1789
196	4 Bootis τ	+ 2·8854	− 0·0007	− 0·035	+ 18·111	− 0·188	− 0·04	1810
197	85 Ursæ Majoris η ...	+ 2·3831	− 0·0103	− 0·012	+ 18·066	− 0·159	+ 0·01	1815
198	8 Bootis η	+ 2·8616	− 0·0006	− 0·005	+ 17·823	− 0·199	+ 0·34	1821
199	... ...	+ 3·8675	+ 0·0584	...	+ 17·773	− 0·268	...	...
200	R. P. L. 108	− 7·4318	+ 2·3498	...	+ 17·301	+ 0·541	...	...
201	Taylor 6609	+ 3·6801	+ 0·0383	...	+ 17·113	− 0·285	...	...
202	Stone 7816	+ 3·7437	+ 0·0404	...	+ 16·780	− 0·305	...	...
203	... ...	+ 4·3965	+ 0·0910	...	+ 16·765	− 0·357	...	...
204	Stone 7826	+ 4·7398	+ 0·1241	...	+ 16·715	− 0·387	...	...
205	... ...	+ 4·4292	+ 0·0878	...	+ 16·359	− 0·379	...	...
206	... ...	+ 4·4289	+ 0·0877	...	+ 16·351	− 0·379	...	...
207	Stone 7897	+ 3·7271	+ 0·0367	..	+ 16·268	− 0·324	...	..
208	Stone 7947	+ 5·0506	+ 0·1394	...	+ 15·936	− 0·452	...	...
209	Taylor 6811	+ 3·8212	+ 0·0403	...	+ 15·903	− 0·345	...	...
210	Stone 7969	+ 3·7413	+ 0·0352	...	+ 15·788	− 0·342	...	...

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Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
211	... ...	8·5	...	14	35	28·51	151	25	42·9	1	0·34
212	... ...	8·5	...	14	38	46·84	128	6	32·4	1	0·80
213	Taylor 6891	6·8	...	14	39	56·08	133	3	50·8	5	0·32
214	... ...	7·5	5	14	42	48·04	126	54	24·4	5	0·35
215	Taylor 6925	5·7	...	14	45	30·72	127	19	14·0	5	0·33
216	... ...	7·5	2	14	47	5·48	131	33	52·9	3	0·30
217	... ...	7·5	3	14	48	10·26	126	41	4·9	4	0·32
218	7 Ursæ Minoris β, Var. 1.	Var.	...	14	51	3·41	15	21	57·8	5	0·36
219	Stone 8165	7·8	...	14	52	35·22	129	19	45·5	5	0·34
220	R. P. L. 110	7·0	...	14	52	53·59	3	34	5·8	4	0·11
221	... .	8·0	1	14	53	29·62	131	49	19·1	3	0·30
222	Taylor 7001	6·7	...	14	56	15·52	125	28	54·2	5	0·32
223	Taylor 7027	6·8	...	14	58	53·17	125	48	33·1	1	0·30
224	27 Libræ β	2·7	...	15	10	42·68	98	57	0·6	10	0·34
225	R. P. L. 114	6·9	...	15	15	19·89	2	19	8·7	3	0·04
226	... ...	9·0	2	15	37	31·10	155	8	45·7	2	0·40
227	24 Serpentis α	2·7	...	15	38	30·32	83	12	18·8	14	0·39
228	37 Serpentis ε	3·7	...	15	44	59·03	85	10	7·7	10	0·39
229	... ...	8·3	...	15	46	27·90	130	46	30·0	4	0·45
230	R. P. L. 116	7·0	...	16	0	47·47	4	21	54·1	11	0·19
231	R. P. L. 117	7·2	...	16	3	14·69	6	2	42·6	13	0·11
232	... ...	7·8	...	16	5	1·55	133	46	12·3	2	0·36
233	... ...	8·5	2	16	6	5·44	125	29	45·0	2	0·36
234	Stone 8832	8·0	...	16	7	57·02	135	5	30·7	2	0·34
235	... ...	8·0	4	16	8	14·33	135	14	55·6	4	0·38
236	Stone 8853	7·6	...	16	10	37·47	124	37	29·3	3	0·35
237	19 Ursæ Minoris	5·5	...	16	14	10·02	13	49	42·3	2	0·37
238	Stone 8892	6·6	...	16	14	44·60	152	51	1·4	4	0·35
239	20 Herculis γ	3·8	...	16	16	45·49	70	34	15·3	10	0·41
240	... ...	8·5	4	16	18	6·14	130	57	19·4	4	0·37
241	21 Ursæ Minoris η ...	5·0	...	16	20	56·10	13	58	30·9	4	0·36
242	... ...	8·0	3	16	23	32·67	136	25	16·7	3	0·36
243	... ...	7·5	1	16	23	38·69	128	44	44·1	1	0·34
244	27 Herculis β	2·8	...	16	25	11·32	68	15	19·0	1	0·39
245	Stone 8976	7·3	...	16	25	25·32	123	16	49·6	3	0·37

225.—Groombridge 2283.
230.—Carrington 2423.
229.—Comparison star for Phædra in 1881.
231.—Carrington 2424.

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
211	... ...	+ 4·6129	+ 0·0930	...	+ 15·614	− 0·427	...	...
212	... ...	+ 3·7422	+ 0·0339	...	+ 15·431	− 0·354	...	...
213	Taylor 6391	+ 3·8752	+ 0·0406	...	+ 15·366	− 0·369	...	...
214	... ...	+ 3·7271	+ 0·0323	...	+ 15·203	− 0·360	...	...
215	Taylor 6925	+ 3·7461	+ 0·0326	...	+ 15·048	− 0·366	...	...
216	... ...	+ 3·8621	+ 0·0379	...	+ 14·957	− 0·380	...	...
217	... ...	+ 3·7393	+ 0·0319	...	+ 14·893	− 0·370	...	...
218	7 Ursæ Minoris β ...	− 0·2306	+ 0·1022	− 0·008	+ 14·722	+ 0·018	+ 0·01	1917
219	Stone 8165	+ 3·8214	+ 0·0346	...	+ 14·631	− 0·386	...	...
220	R. P. L. 110	− 11·6097	+ 3·0017	...	+ 14·613	+ 1·154	...	...
221	... ...	+ 3·8838	+ 0·0378	...	+ 14·576	− 0·395	...	..
222	Taylor 7001	+ 3·7351	+ 0·0300	...	+ 14·410	− 0·384	...	...
223	Taylor 7027	+ 3·7510	+ 0·0302	...	+ 14·249	− 0·390	...	...
224	27 Libræ β	+ 3·2280	+ 0·0117	− 0·008	+ 13·502	− 0·353	+ 0·02	1934
225	R. P. L 114	− 21·7776	+ 7·3882	...	+ 13·200	+ 2·385	...	...
226	... ...	+ 5·4187	+ 0·1022	...	+ 11·679	− 0·645	...	..
227	24 Serpentis α ...	+ 2·9425	+ 0·0062	+ 0·008	+ 11·610	− 0·354	− 0·06	1990
228	37 Serpentis ε ...	+ 2·9784	+ 0·0066	+ 0·007	+ 11·143	− 0·365	− 0·06	2005
229	... ...	+ 4·0350	+ 0·0306	...	+ 11·034	− 0·495	...	...
230	R. P. L. 116	− 12·1258	+ 1·7439	...	+ 9·967	+ 1·530	...	...
231	R. P. L. 117	− 7·9486	+ 0·8614	...	+ 9·780	+ 1·008	...	...
232	... ...	+ 4·1953	+ 0·0307	...	+ 9·644	− 0·539	...	...
233	... ...	+ 3·9105	+ 0·0227	...	+ 9·562	− 0·505	...	...
234	Stone 8832	+ 4·2564	+ 0·0318	...	+ 9·419	− 0·551	...	...
235	... ...	+ 4·2637	+ 0·0319	...	+ 9·396	− 0·552	...	...
236	Stone 8853	+ 3·8924	+ 0·0214	...	+ 9·211	− 0·507	...	...
237	19 Ursæ Minoris ..	− 1·7925	+ 0·1266	− 0·005	+ 8·934	+ 0·231	− 0·00	2096
238	Stone 8892	+ 5·4092	+ 0·0715	...	+ 8·888	− 0·709	...	...
239	20 Herculis γ ...	+ 2·6479	+ 0·0038	− 0·005	+ 8·732	− 0·351	− 0·05	2084
240	... ...	+ 4·1198	+ 0·0254	...	+ 8·627	− 0·545	...	...
241	21 Ursæ Minoris η ...	− 1·8051	+ 0·1185	− 0·019	+ 8·401	+ 0·237	− 0·25	2111
242	... ...	+ 4·3548	+ 0·0299	...	+ 8·192	− 0·583	...	...
243	... ...	+ 4·0517	+ 0·0225	...	+ 8·187	− 0·543	.	...
244	27 Herculis β ...	+ 2·5841	+ 0·0037	− 0·009	+ 8·061	− 0·348	+ 0·02	2100
245	Stone 8976	+ 3·8762	+ 0·0185	...	+ 8·041	− 0·520	...	...

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Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
246	... ...	9·5	3	16	29	2·63	125	32	36·0	3	0·38
247	η^1 Trianguli Australis ...	6·4	...	16	29	19·56	158	3	36·1	2	0·36
248	Stone 9014	7·3	...	16	30	33·44	128	54	48·0	1	0·34
249	13 Ophiuchi ζ	2·8	...	16	30	43·00	100	19	44·0	20	0·42
250	Lacaille 6881	6·6	...	16	31	31·80	157	12	5·0	2	0·35
251	... ...	7·5	5	16	36	1·15	128	6	36·3	5	0·37
252	... ...	8·0	2	16	38	51·77	125	34	33·7	2	0·35
253	... ...	9·5	4	16	41	15·34	126	18	21·2	4	0·40
254	... ...	7·5	...	16	41	37·68	132	53	52·9	1	0·35
255	... ...	8·0	3	16	42	29·49	127	50	30·9	3	0·36
256	... ...	7·5	5	16	44	2·02	129	2	39·4	5	0·39
257	Taylor 7793	7·0	...	16	44	42·16	127	23	47·9	1	0·35
258	... ...	9·5	2	16	49	0·76	132	12	58·1	2	0·37
259	... ...	8·5	4	16	50	20·18	128	26	17·6	4	0·35
260	... ...	9·0	...	16	56	52·92	129	52	39·8	5	0·37
261	22 Ursæ Minoris ϵ ...	4·5	...	16	57	59·87	7	46	16·9	2	0·41
262	... ...	9·0	1	16	59	23·33	132	35	35·5	1	0·34
263	R. P. L. 118	8·0	...	17	1	59·57	5	8	35·3	15	0·24
264	Stone 9338	7·3	...	17	2	48·32	131	17	23·8	5	0·39
265	... ...	7·5	5	17	2	50·92	131	32	56·1	5	0·40
266	35 Ophiuchi η	2·6	...	17	3	40·07	105	34	43·4	20	0·52
267	... ...	8·5	..	17	6	15·90	131	19	56·9	1	0·36
268	Stone 9389	8·0	...	17	8	59·80	129	17	48·0	2	0·37
269	... ...	8·2	5	17	9	34·27	128	31	54·9	5	0·61
270	... ...	9·0	5	17	10	16·68	123	20	55·3	5	0·50
271	... ...	8·0	4	17	10	47·19	125	57	32·2	4	0·57
272	Stone 9428	7·0	...	17	12	18·41	155	35	2·3	1	0·38
273	... ...	9·0	4	17	13	18·04	129	22	49·0	4	0·44
274	... ...	7·4	4	17	14	38·76	131	58	17·8	4	0·39
275	Stone 9448—2*nd*	7·3	...	17	14	41·28	128	5	8·6	4	0·38
276	... ...	9·3	...	17	15	31·03	145	52	52·1	5	0·60
277	... ...	9·1	5	17	17	18·77	138	28	55·2	5	0·47
278	Stone 9479	7·7	...	17	17	27·63	138	30	22·0	5	0·51
279	49 Ophiuchi σ	4·4	...	17	20	42·58	85	45	25·1	10	0·41
280	... ...	8·0	5	17	21	46·19	127	10	45·3	5	0·58

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
246	... ...	+ 3·9532	+ 0·0192	...	+ 7·751	− 0·534	...	...
247	η^1 Trianguli Australis	+ 6·1349	+ 0·0913	...	+ 7·729	− 0·827	...	...
248	Stone 9014	+ 4·0705	+ 0·0213	...	+ 7·629	− 0·551	...	...
249	13 Ophiuchi ζ ...	+ 3·2977	+ 0·0087	− 0·001	+ 7·616	− 0·447	− 0·04	2109
250	Lacaille 6881 ...	+ 6·0189	+ 0·0837	...	+ 7·550	− 0·814	...	...
251	... ...	+ 4·0514	+ 0·0196	...	+ 7·186	− 0·554	...	...
252	... ...	+ 3·9693	+ 0·0175	...	+ 6·952	− 0·547	...	...
253	.. ..	+ 3·9972	+ 0·0176	...	+ 6·755	− 0·551	...	...
254	.. ..	+ 4·2427	+ 0·0220	...	+ 6·724	− 0·585	...	...
255	... ...	+ 4·0521	+ 0·0182	...	+ 6·653	− 0·560	...	...
256	... ...	+ 4·0977	+ 0·0188	...	+ 6·527	− 0·567	...	...
257	Taylor 7793	+ 4·0398	+ 0·0175	...	+ 6·470	− 0·560	...	...
258	... ...	+ 4·2275	+ 0·0197	..	+ 6·113	− 0·590	...	...
259	... ...	+ 4·0848	+ 0·0171	...	+ 6·002	− 0·571	...	...
260	... ...	+ 4·1472	+ 0·0164	...	+ 5·453	− 0·583	...	...
261	22 Ursæ Minoris ϵ ...	− 6·3674	+ 0·3104	+ 0·009	+ 5·359	+ 0·893	+ 0·00	2201
262	... ...	+ 4·2587	+ 0·0175	...	+ 5·242	− 0·601	...	...
263	R. P. L. 118	− 11·3079	+ 0·7060	...	+ 5·022	+ 1·594	...	...
264	Stone 9338	+ 4·2101	+ 0·0159	...	+ 4·952	− 0·597	...	...
265	... ...	+ 4·2205	+ 0·0160	...	+ 4·949	− 0·598	...	...
266	35 Ophiuchi η ...	+ 3·4339	+ 0·0073	...	+ 4·880	− 0·487	...	...
267	... ...	+ 4·2160	+ 0·0150	...	+ 4·659	− 0·600	...	...
268	Stone 9389	+ 4·1394	+ 0·0134	...	+ 4·426	− 0·590	...	...
269	... ...	+ 4·1112	+ 0·0131	...	+ 4·377	− 0·587	...	...
270	... ...	+ 3·9316	+ 0·0110	...	+ 4·317	− 0·562	...	...
271	.. ..	+ 4·0200	+ 0·0123	...	+ 4·269	− 0·623	...	...
272	Stone 9428	+ 5·9538	+ 0·0431	...	+ 4·143	− 0·851	...	...
273	.. ..	+ 4·1470	+ 0·0126	...	+ 4·057	− 0·594	...	...
274	... ...	+ 4·2515	+ 0·0134	...	+ 3·942	− 0·609	...	...
275	Stone 9448	+ 4·0996	+ 0·0118	...	+ 3·938	− 0·588	...	...
276	... ...	+ 5·0084	+ 0·0231	...	+ 3·868	− 0·718	...	...
277	... ...	+ 4·5563	+ 0·0162	...	+ 3·714	− 0·654	...	...
278	Stone 9479	+ 4·5578	+ 0·0161	...	+ 3·701	− 0·655	...	...
279	49 Ophiuchi σ ...	+ 2·9746	+ 0·0037	− 0·002	+ 3·421	− 0·428	− 0·02	2206
280	... ...	+ 4·0795	+ 0·0100	...	+ 3·330	− 0·586	...	...

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Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
281	α Aræ	2·9	...	17	22	47·74	139	46	53·0	5	0·57
282	34 Scorpii υ	2·8	...	17	22	48·30	127	12	3·8	3	0·62
283	Stone 9566	7·3	...	17	26	10·82	130	26	47·9	5	0·51
284	... ...	9·0	...	17	28	7·56	134	29	10·4	1	0·40
285	Stone 9578	7·8	...	17	28	9·80	146	44	38·7	3	0·63
286	Brisbane 6132	9·0	...	17	28	38·23	135	4	47·9	1	0·38
287	θ Scorpii	2·1	...	17	28	54·63	132	55	16·9	5	0·44
288	... ...	8·0	5	17	29	8·92	128	42	31·2	5	0·58
289	... ...	7·0	5	17	31	44·58	128	17	57·8	5	0·39
290	R. P. L. 120	7·3	...	17	31	46·62	5	17	25·9	15	0·21
291	... ...	7·0	5	17	32	56·17	130	1	35·8	5	0·52
292	Brisbane 6160	8·0	1	17	33	20·24	134	43	12·5	1	0·38
293	... ...	7·5	5	17	35	28·25	144	4	40·2	5	0·61
294	60 Ophiuchi β	2·9	...	17	37	41·47	85	22	57·4	20	0·48
295	... ...	8·5	3	17	39	34·72	128	18	48·5	4	0·51
296	... ...	8·5	5	17	40	23·34	128	18	53·4	5	0·58
297	... ...	8·5	...	17	42	51·28	143	28	17·8	2	0·65
298	... ...	7·5	5	17	44	10·67	129	6	59·0	5	0·39
299	Taylor 8243	6·8	...	17	44	30·74	131	57	29·8	5	0·43
300	... ...	9·5	4	17	45	11·77	131	58	2·9	5	0·44
301	... ...	9·0	5	17	45	39·91	129	13	59·3	5	0·59
302	... ...	8·0	3	17	50	28·60	151	21	13·9	3	0·38
303	... ...	7·8	5	17	51	51·27	129	3	3·6	5	0·48
304	... ...	7·0	5	17	52	15·75	127	23	51·0	5	0·40
305	... ...	9·0	4	17	52	34·29	137	2	29·2	5	0·43
306	O. A. S. 17446	8·0	5	17	52	45·56	119	52	58·5	5	0·61
307	O. A. S. 17452	7·8	...	17	52	58·46	119	48	53·8	5	0·57
308	... ...	8·9	1	17	56	36·54	128	56	59·8	1	0·38
309	Stone 9840	7·5	...	17	57	33·63	127	28	30·9	5	0·47
310	... ...	7·8	...	17	58	5·33	127	26	20·2	5	0·44
311	Stone 9849	7·8	...	17	58	13·24	127	30	7·2	5	0·52
312	... ...	8·5	...	17	59	22·57	128	13	8·7	5	0·39
313	... ...	8·0	5	17	59	31·69	129	31	42·9	5	0·61
314	... ...	7·5	4	18	3	22·12	128	12	57·8	5	0·64
315	... ...	9·7	1	18	5	50·73	133	7	10·8	1	0·45

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
281	α Aræ	+ 4·6325	+ 0·0149	− 0·005	+ 3·241	− 0·667	+ 0·09	Stone
282	34 Scorpii υ	+ 4·0738	+ 0·0097	− 0·004	+ 3·240	− 0·587	+ 0·06	2205
283	Stone 9566	+ 4·1997	+ 0·0099	...	+ 2·949	− 0·606	...	...
284	... ...	+ 4·3729	+ 0·0108	...	+ 2·779	− 0·632	...	...
285	Stone 9578	+ 5·0914	+ 0·0176	...	+ 2·777	− 0·736	...	...
286	Brisbane 6132 ...	+ 4·4005	+ 0·0113	...	+ 2·735	− 0·650	...	...
287	θ Scorpii	+ 4·3042	+ 0·0100	+ 0·001	+ 2·713	− 0·623	+ 0·02	Stone
288	... ...	+ 4·1340	+ 0·0087	...	+ 2·691	− 0·598	...	...
289	... ...	+ 4·1201	+ 0·0081	...	+ 2·466	− 0·597	...	...
290	R. P. L. 120	− 11·2557	+ 0·3396	...	+ 2·463	+ 1·628	...	...
291	... ...	+ 4·1874	+ 0·0081	...	+ 2·362	− 0·607	...	...
292	Brisbane 6160 ...	+ 4·3872	+ 0·0093	...	+ 2·327	− 0·636	...	...
293	... ...	+ 4·9072	+ 0·0124	...	+ 2·142	− 0·712	...	...
294	60 Ophiuchi β ...	+ 2·9649	+ 0·0030	− 0·005	+ 1·949	− 0·431	− 0·17	2229
295	... ...	+ 4·1245	+ 0·0062	...	+ 1·785	− 0·600	...	...
296	... ...	+ 4·1250	+ 0·0060	...	+ 1·714	− 0·597	...	...
297	... ...	+ 4·8722	+ 0·0089	...	+ 1·499	− 0·709	...	...
298	... ...	+ 4·1569	+ 0·0052	...	+ 1·384	− 0·605	...	...
299	Taylor 8243	+ 4·2715	+ 0·0056	...	+ 1·354	− 0·622	...	...
300	... ...	+ 4·2722	+ 0·0055	...	+ 1·294	− 0·622	...	...
301	... ...	+ 4·1619	+ 0·0049	...	+ 1·253	− 0·607	...	...
302	.. ..	+ 5·5175	+ 0·0077	...	+ 0·833	− 0·804	...	...
303	... ...	+ 4·1563	+ 0·0034	...	+ 0·713	− 0·606	...	..
304	... ...	+ 4·0939	+ 0·0033	...	+ 0·677	− 0·597	...	...
305	... ...	+ 4·5073	+ 0·0039	...	+ 0·651	− 0·657	...	...
306	O. A. S. 17446 ...	+ 3·8401	+ 0·0029	...	+ 0·633	− 0·560	...	...
307	O. A. S. 17452 ...	+ 3·8381	+ 0·0029	...	+ 0·614	− 0·559	...	...
308	... ...	+ 4·1529	+ 0·0024	...	+ 0·297	− 0·605	...	...
309	Stone 9840	+ 4·0973	+ 0·0022	...	+ 0·213	− 0·598	...	...
310	... ...	+ 4·0959	+ 0·0020	...	+ 0·167	− 0·597	...	...
311	Stone 9849	+ 4·0983	+ 0·0020	...	+ 0·156	− 0·597	...	...
312	... ...	+ 4·1250	+ 0·0017	...	+ 0·054	− 0·602	...	...
313	... ...	+ 4·1754	+ 0·0017	...	+ 0·041	− 0·609	...	...
314	.. ..	+ 4·1249	+ 0·0009	...	− 0·295	− 0·602	...	...
315	... ...	+ 4·3239	− 0·0001	...	− 0·511	− 0·630	...	...

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Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of year.
				h.	*m.*	*s.*	°	′	″		
316	Stone 9922	8·5	...	18	5	52·89	133	10	51·9	7	0·45
317	Stone 9924	7·8	...	18	6	0·80	131	56	16·0	5	0·41
318	... ...	7·8	...	18	6	41·70	126	55	45·0	5	0·59
319	... ...	8·8	4	18	9	4·95	131	16	17·5	4	0·52
320	23 Ursæ Minoris δ ...	4·3	...	18	10	3·20	3	23	23·5	2	0·52
321	... ...	8·0	1	18	10	21·14	126	23	38·6	1	0·39
322	... ...	8·0	4	18	13	25·62	136	5	3·0	5	0·41
323	... ...	8·8	...	18	14	12·57	127	48	38·4	1	0·40
324	Taylor 8452	5·6	...	18	14	14·53	128	42	29·1	5	0·67
325	58 Serpentis η	3·4	...	18	15	15·31	92	55	41·4	20	0·55
326	... ...	7·0	1	18	15	22·31	128	47	29·8	4	0·68
327	... ...	8·0	...	18	15	42·39	138	50	53·2	4	0·39
328	... ...	8·0	1	18	16	32·65	127	17	6·3	1	0·38
329	22 Sagittarii λ	3·1	...	18	20	44·98	115	29	6·0	20	0·58
330	... ...	8·5	...	18	22	46·04	129	33	50·7	5	0·40
331	. ...	8·3	3	18	23	24·80	127	40	10·8	5	0·45
332	Stone 10124	7·8	...	18	29	26·77	131	42	32·5	5	0·40
333	... ...	8·5	6	18	30	45·34	127	5	57·3	6	0·60
334	... ...	9·0	5	18	30	55·24	127	58	18·2	5	0·58
335	... ...	7·5	4	18	31	24·86	127	23	13·7	5	0·44
336	Stone 10154	8·0	...	18	32	12·22	134	16	33·3	3	0·38
337	... ...	8·0	5	18	34	2·27	125	42	5·5	5	0·41
338	... ...	8·0	...	18	34	16·67	124	34	17·8	5	0·69
339	Stone 10187	7·8	...	18	36	45·11	127	0	7·7	5	0·61
340	Taylor 8599	5·8	...	18	36	49·40	129	48	6·5	6	0·53
341	Taylor 8600	7·0	...	18	36	51·47	129	51	37·1	5	0·50
342	... ...	7·5	5	18	38	45·51	131	17	0·6	5	0·39
343	... ...	9·0	5	18	39	14·18	128	56	34·0	5	0·42
344	Stone 10239	8·0	...	18	42	49·47	134	36	20·4	6	0·61
345	... ...	8·3	...	18	43	31·09	134	49	13·4	5	0·66
346	Taylor 8647	7·0	...	18	43	38·57	134	40	15·1	4	0·72
347	... ...	7·9	2	18	43	48·78	125	31	2·0	3	0·70
348	... ...	9·1	5	18	45	24·16	129	28	13·7	4	0·42
349	.. ..	8·5	..	18	47	6·54	133	50	46·5	5	0·67
350	Taylor 8685	5·7	...	18	48	44·17	127	29	25·4	5	0·61

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
316	Stone 9922	+ 4·3266	− 0·0001	...	− 0·515	− 0·631	...	...
317	Stone 9924	+ 4·2731	+ 0·0001	...	− 0·527	− 0·623	...	...
318	... ...	+ 4·0767	+ 0·0002	...	− 0·586	− 0·594	...	...
319	... ...	+ 4·2447	− 0·0008	...	− 0·795	− 0·619	...	...
320	23 Ursæ Minoris δ ...	− 19·4710	− 0·2912	+ 0·026	− 0·879	+ 2·837	− 0·04	2395
321	... ...	+ 4·0568	− 0·0006	...	− 0·905	− 0·591	...	...
322	... ...	+ 4·4585	− 0·0028	...	− 1·175	− 0·649	...	..
323	... ...	+ 4·1079	− 0·0015	...	− 1·243	− 0·598	...	...
324	Taylor 8452	+ 4·1417	− 0·0018	...	− 1·246	− 0·602	...	...
325	58 Serpentis η ...	+ 3·1405	+ 0·0010	− 0·040	− 1·334	− 0·456	+ 0·68	2298
326	... ...	+ 4·1445	− 0·0021	...	− 1·344	− 0·602	...	...
327	... ...	+ 4·5985	− 0·0042	...	− 1·373	− 0·668	...	...
328	... ...	+ 4·0876	− 0·0020	...	− 1·447	− 0·594	...	...
329	22 Sagittarii λ ...	+ 3·7070	− 0·0013	− 0·005	− 1·813	− 0·537	+ 0·20	2310
330	... ...	+ 4·1747	− 0·0040	...	− 1·988	− 0·605	...	...
331	... ...	+ 4·0991	− 0·0037	...	− 2·046	− 0·594	...	...
332	Stone 10124	+ 4·2541	− 0·0061	...	− 2·569	− 0·615	...	...
333	... ...	+ 4·0744	− 0·0051	...	− 2·683	− 0·588	...	...
334	... ...	+ 4·1063	− 0·0053	...	− 2·698	− 0·593	...	...
335	... ...	+ 4·0845	− 0·0053	...	− 2·741	− 0·589	...	...
336	Stone 10154	+ 4·3631	− 0·0079	...	− 2·809	− 0·630	...	...
337	... ...	+ 4·0225	− 0·0054	...	− 2·967	− 0·580	...	...
338	... ...	+ 3·9834	− 0·0052	...	− 2·989	− 0·574	...	...
339	Stone 10187	+ 4·0669	− 0·0064	...	− 3·203	− 0·585	...	...
340	Taylor 8599	+ 4·1719	− 0·0073	...	− 3·208	− 0·600	...	...
341	Taylor 8600	+ 4·1742	− 0·0073	...	− 3·211	− 0·600	...	...
342	... ...	+ 4·2294	− 0·0084	...	− 3·376	− 0·607	...	...
343	... ...	+ 4·1369	− 0·0077	...	− 3·417	− 0·594	...	...
344	Stone 10239	+ 4·3681	− 0·0110	...	− 3·726	− 0·625	...	...
345	... ...	+ 4·3770	− 0·0113	...	− 3·785	− 0·625	...	...
346	Taylor 8647	+ 4·3701	− 0·0113	...	− 3·796	− 0·624	...	...
347	... ...	+ 4·0092	− 0·0073	...	− 3·811	− 0·573	...	...
348	... ...	+ 4·1518	− 0·0093	...	− 3·946	− 0·591	...	...
349	... ...	+ 4·3295	− 0·0117	...	− 4·093	− 0·617	...	...
350	Taylor 8685	+ 4·0748	− 0·0090	...	− 4·233	− 0·579	...	...

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Mean Positions of Stars for 1883, *January* 1*st*.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
351	... ...	9·5	1	18	52	14·82	132	56	57·4	1	0·41
352	Taylor 8715—1*st*	7·0	...	18	53	8·64	127	13	15·9	5	0·70
353	Taylor 8715—2*nd* ...	7·0	...	18	53	9·78	127	13	18·8	5	0·72
354	... ...	8·5	2	18	53	54·87	128	6	56·3	2	0·64
355	13 Aquilæ ε	4·1	...	18	54	18·63	75	5	22·4	20	0·58
356	Stone 10351	6·1	...	18	55	18·25	128	25	12·8	4	0·75
357	... ...	7·5	...	19	0	11·78	135	15	26·1	5	0·65
358	Stone 10391	7·8	...	19	0	33·02	132	36	21·7	2	0·74
359	Stone 10400	7·2	...	19	1	34·57	130	0	38·1	5	0·50
360	... ...	8·5	3	19	4	10·04	135	27	41·6	3	0·61
361	Stone 10420	7·0	...	19	4	14·51	127	46	27·6	5	0·75
362	Stone 10432	6·3	...	19	6	8·78	135	23	24·5	2	0·60
363	... ...	7·5	2	19	7	41·63	129	24	5·3	2	0·65
364	Taylor 8823	5·9	...	19	7	50·30	135	40	3·9	6	0·66
365	Stone 10451	7·3	...	19	8	52·33	135	37	33·5	4	0·71
366	... ...	9·5	2	19	10	13·35	130	46	34·3	2	0·61
367	... ...	7·5	1	19	10	40·16	129	45	12·3	1	0·61
368	Stone 10465	5·9	...	19	11	54·58	125	37	59·2	3	0·75
369	Stone 10467	7·5	...	19	12	30·42	135	35	11·6	5	0·56
370	Stone 10487	7·0	...	19	14	14·57	119	49	17·6	4	0·74
371	... ...	8·3	...	19	14	18·77	127	26	18·2	5	0·68
372	... ...	8·5	...	19	17	6·82	130	4	36·7	2	0·59
373	49 Sagittarii χ^3	5·9	...	19	18	24·65	114	11	24·7	2	0·76
374	... ...	9·5	5	19	19	47·76	130	13	12·0	5	0·62
375	Stone 10534	8·0	...	19	21	55·22	125	19	13·6	4	0·75
376	... ...	8·0	3	19	22	5·72	132	34	16·5	4	0·63
377	... ...	9·0	1	19	25	49·63	133	42	50·9	1	0·60
378	... ...	9·0	...	19	25	58·53	146	55	2·3	2	0·70
379	Taylor 8982	6·3	...	19	28	35·13	148	14	24·0	1	0·78
380	Stone 10583	7·5	...	19	29	32·25	131	42	58·4	5	0·60
381	... ...	8·0	3	19	29	45·63	125	29	57·8	4	0·67
382	... ...	8·0	1	19	30	11·65	129	1	3·4	1	0·57
383	Stone 10594	6·7	...	19	31	17·22	135	32	34·2	5	0·74
384	Stone 10598	6·8	...	19	31	57·26	129	41	47·1	2	0·78
385	... ...	7·5	1	19	33	25·30	126	35	58·9	1	0·76

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
351	... ...	+ 4·2846	− 0·0126	...	− 4·533	− 0·607	...	...
352	Taylor 8715—1*st.* ...	+ 4·0607	− 0·0098	...	− 4·609	− 0·575	...	...
353	Taylor 8715—2*nd.* ...	+ 4·0607	− 0·0098	...	− 4·610	− 0·575	...	...
354	... ...	+ 4·0923	− 0·0104	...	− 4·676	− 0·579	...	...
355	13 Aquilæ *e*	+ 2·7263	+ 0·0004	− 0·005	− 4·708	− 0·385	+ 0·08	2390
356	Stone 10351	+ 4·1020	− 0·0109	...	− 4·792	− 0·579	...	...
357	... ...	+ 4·3750	− 0·0163	...	− 5·207	− 0·615	...	...
358	Stone 10391	+ 4·2594	− 0·0145	...	− 5·237	− 0·598	...	...
359	Stone 10400	+ 4·1543	− 0·0131	...	− 5·323	− 0·583	...	...
360	... ...	+ 4·3780	− 0·0176	...	− 5·542	− 0·612	...	...
361	Stone 10420	+ 4·0679	− 0·0124	...	− 5·548	− 0·569	...	...
362	Stone 10432	+ 4·3715	− 0·0179	...	− 5·708	− 0·610	...	...
363	... ...	+ 4·1231	− 0·0141	...	− 5·837	− 0·574	...	...
364	Taylor 8823	+ 4·3813	− 0·0187	...	− 5·850	− 0·610	...	...
365	Stone 10451	+ 4·3775	− 0·0190	...	− 5·936	− 0·608	...	...
366	... ...	+ 4·1717	− 0·0155	...	− 6·049	− 0·574	...	...
367	... ...	+ 4·1320	− 0·0149	...	− 6·085	− 0·573	...	...
368	Stone 10465	+ 3·9839	− 0·0127	...	− 6·190	− 0·550	...	...
369	Stone 10467	+ 4·3692	− 0·0199	...	− 6·239	− 0·608	...	...
370	Stone 10487	+ 3·7989	− 0·0103	...	− 6·382	− 0·523	...	...
371	... ...	+ 4·0426	− 0·0142	...	− 6·388	− 0·557	...	...
372	... ...	+ 4·1342	− 0·0166	...	− 6·621	− 0·567	...	...
373	49 Sagittarii χ^3 ...	+ 3·6381	− 0·0085	− 0·003	− 6·729	− 0·497	+ 0·01	2446
374	... ...	+ 4·1351	− 0·0167	...	− 6·842	− 0·565	...	...
375	Stone 10534	+ 3·9597	− 0·0144	...	− 7·017	− 0·539	...	...
376	... ...	+ 4·2237	− 0·0195	..	− 7·031	− 0·574	..	...
377	... ...	+ 4·2619	− 0·0214	...	− 7·335	− 0·576	...	...
378	... ...	+ 4·9817	− 0·0408	...	− 7·348	− 0·674	...	...
379	Taylor 8982	+ 5·0786	− 0·0452	...	− 7·561	− 0·682	...	...
380	Stone 10583	+ 4·1744	− 0·0205	...	− 7·637	− 0·561	...	...
381	... ...	+ 3·9538	− 0·0158	...	− 7·655	− 0·531	...	...
382	... ...	+ 4·0729	− 0·0184	...	− 7·690	− 0·546	...	...
383	Stone 10594	+ 4·3281	− 0·0246	...	− 7·778	− 0·580	...	...
384	Stone 10598	+ 4·0941	− 0·0192	...	− 7·833	− 0·548	...	...
385	... ...	+ 3·9838	− 0·0172	...	− 7·950	− 0·531	...	...

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Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
386	Stone 10622	6·1	...	19	35	48·42	127	48	47·2	2	0·74
387	Stone 10624	7·2	...	19	36	21·52	131	53	8·2	3	0·78
388	R. P. L. 133	7·9	...	19	37	46·97	4	9	17·2	14	0·39
389	R. P. L. 134	8·5	...	19	39	34·83	4	9	32·2	16	0·32
390	... ...	8·0	3	19	39	48·75	125	27	35·9	3	0·59
391	... ...	7·8	...	19	40	25·74	128	8	6·1	5	0·70
392	Stone 10658	7·0	...	19	41	45·01	128	4	1·6	6	0·73
393	Stone 10665	6·7	...	19	42	49·76	141	16	11·3	5	0·79
394	Taylor 9112	5·6	...	19	43	53·65	130	10	9·5	2	0·57
395	Stone 10677	6·9	...	19	43	59·78	127	37	47·8	5	0·70
396	Taylor 9131	7·0	...	19	47	16·59	148	13	51·9	2	0·75
397	... ...	8·5	1	19	48	9·62	131	59	53·1	2	0·65
398	... ...	8·0	...	19	50	19·15	132	59	35·1	1	0·72
399	Stone 10720	6·9	...	19	50	30·12	126	59	48·8	5	0·78
400	Stone 10727	6·5	...	19	51	34·59	120	51	2·1	5	0·74
401	Stone 10739	6·7	...	19	52	18·08	133	21	38·8	4	0·79
402	Stone 10752	8·0	...	19	53	51·58	126	59	55·9	5	0·71
403	... ...	8·0	1	19	54	25·56	130	18	18·3	1	0·62
404	Taylor 9195	5·0	...	19	55	46·79	128	15	46·0	5	0·77
405	... ...	9·0	4	19	56	54·69	131	48	50·5	4	0·64
406	Taylor 9213	6·5	...	19	58	21·86	145	21	0·0	5	0·79
407	... ...	9·5	2	19	58	30·50	148	10	37·3	2	0·60
408	Stone 10792	7·3	...	19	59	43·80	125	51	59·7	5	0·74
409	Stone 10797	6·6	...	20	0	38·87	137	24	12·0	3	0·78
410	Stone 10823	6·8	...	20	5	6·58	138	3	38·5	5	0·79
411	65 Aquilæ θ	3·4	...	20	5	16·01	91	10	3·2	20	0·69
412	Taylor 9303	6·2	...	20	7	59·41	117	22	52·3	2	0·78
413	Stone 10840	6·5	...	20	8	46·49	126	48	34·5	5	0·79
414	Stone 10858	7·5	...	20	10	48·15	134	53	13·9	3	0·63
415	Stone 10859	6·3	...	20	10	52·69	137	56	11·5	5	0·75
416	Taylor 9343	6·5	...	20	13	10·93	140	21	33·5	4	0·81
417	Stone 10884	7·3	...	20	13	48·94	123	6	20·3	5	0·69
418	... ...	8·5	...	20	14	42·99	133	19	31·5	5	0·70
419	Taylor 9370	5·6	...	20	15	55·57	132	47	50·3	5	0·78
420	R. P. L. 138	7·1	...	20	16	18·24	5	40	30·6	5	0·66

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
386	Stone 10622	+ 4·0192	− 0·0184	...	− 8·142	− 0·534	...	...
387	Stone 10624	+ 4·1668	− 0·0221	...	− 8·184	− 0·553	...	...
388	R. P. L. 133	− 13·6822	− 1·6816	...	− 8·299	+ 1·821	...	...
389	R. P. L. 134	− 13·6049	− 1·7006	...	− 8·442	+ 1·804	...	...
390	... ...	+ 3·9356	− 0·0175	...	− 8·460	− 0·517	...	...
391	... ...	+ 4·0227	− 0·0195	...	− 8·509	− 0·528	...	...
392	Stone 10658	+ 4·0178	− 0·0197	...	− 8·614	− 0·526	...	...
393	Stone 10665	+ 4·5743	− 0·0356	...	− 8·699	− 0·598	...	...
394	Taylor 9112	+ 4·0869	− 0·0218	...	− 8·783	− 0·533	...	...
395	Stone 10677	+ 3·9987	− 0·0197	...	− 8·791	− 0·521	...	...
396	Taylor 9131	+ 4·9989	− 0·0530	...	− 9·048	− 0·648	...	...
397	... ...	+ 4·1444	− 0·0245	...	− 9·117	− 0·535	...	.
398	... ...	+ 4·1772	− 0·0256	...	− 9·284	− 0·537	...	...
399	Stone 10720	+ 3·9648	− 0·0202	...	− 9·299	− 0·509	...	...
400	Stone 10727	+ 3·7781	− 0·0159	...	− 9·382	− 0·484	...	...
401	Stone 10739	+ 4·1863	− 0·0268	...	− 9·439	− 0·536	...	...
402	Stone 10752	+ 3·9579	− 0·0208	...	− 9·558	− 0·505	...	...
403	... ...	+ 4·0678	− 0·0239	...	− 9·601	− 0·518	...	...
404	Taylor 9195	+ 3·9950	− 0·0222	...	− 9·706	− 0·507	...	...
405	... ...	+ 4·1161	− 0·0259	...	− 9·792	− 0·521	...	...
406	Taylor 9213	+ 4·7543	− 0·0488	...	− 9·903	− 0·600	...	...
407	... ...	+ 4·9444	− 0·0572	...	− 9·914	− 0·623	...	...
408	Stone 10792	+ 3·9099	− 0·0207	...	− 10·006	− 0·491	...	...
409	Stone 10797	+ 4·3295	− 0·0338	...	− 10·074	− 0·543	...	...
410	Stone 10823	+ 4·3441	− 0·0358	...	− 10·412	− 0·539	...	...
411	65 Aquilæ θ	+ 3·0957	− 0·0042	− 0·000	− 10·423	− 0·382	− 0·01	2576
412	Taylor 9303	+ 3·6596	− 0·0155	...	− 10·626	− 0·448	...	...
413	Stone 10840	+ 3·9190	− 0·0228	...	− 10·684	− 0·480	...	...
414	Stone 10858	+ 4·1929	− 0·0323	...	− 10·835	− 0·511	...	...
415	Stone 10859	+ 4·3188	− 0·0368	...	− 10·840	− 0·526	...	...
416	Taylor 9343	+ 4·4211	− 0·0417	...	− 11·009	− 0·535	...	...
417	Stone 10884	+ 3·7996	− 0·0202	...	− 11·055	− 0·458	...	...
418	... ...	+ 4·1210	− 0·0308	...	− 11·121	− 0·496	...	...
419	Taylor 9370	+ 4·0988	− 0·0303	...	− 11·208	− 0·492	...	...
420	R. P. L. 138	− 8·0705	− 1·0526	...	− 11·236	+ 0·980	...	...

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Mean Positions of Stars for 1883, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
421	... ...	7·8	2	20	20	6·56	130	23	43·1	3	0·73
422	Taylor 9415	6·3	...	20	21	16·01	125	58	50·5	5	0·77
423	Stone 10939	6·5	...	20	23	46·73	119	30	11·9	5	0·80
424	Taylor 9464	7·8	...	20	26	40·77	112	37	37·0	4	0·79
425	R. P. L. 143	6·7	...	20	26	58·79	5	14	40·0	1	0·57
426	2 Delphini ε	4·1	...	20	27	37·31	79	5	37·2	25	0·72
427	Stone 11003	7·3	...	20	32	23·44	126	26	32·9	5	0·80
428	Taylor 9519	6·4	...	20	33	34·17	132	32	47·2	2	0·69
429	Taylor 9544	6·7	...	20	35	13·01	129	58	32·0	5	0·79
430	Taylor 9561	7·2	...	20	37	14·30	126	14	54·0	4	0·80
431	... ...	8·0	1	20	37	38·38	126	31	44·5	4	0·74
432	Taylor 9573	7·0	...	20	39	21·10	136	16	49·3	2	0·80
433	2 Aquarii ε	3·8	...	20	41	20·45	99	55	23·6	21	0·72
434	... ...	8·0	...	20	41	44·10	132	8	36·9	1	0·74
435	Taylor 9602	6·1	...	20	42	20·56	116	12	43·2	5	0·78
436	Stone 11081	7·5	...	20	43	59·40	131	20	28·7	1	0·78
437	Stone 11091	7·5	...	20	44	40·91	142	9	10·9	1	0·81
438	... ...	8·0	3	20	45	22·41	135	45	24·1	3	0·74
439	Stone 11103	6·6	...	20	46	13·38	141	10	0·8	5	0·69
440	Stone 11115	6·7	...	20	47	5·52	118	21	59·2	2	0·82
441	Stone 11120	7·8	...	20	47	24·40	145	39	55·4	5	0·80
442	... ...	8·5	1	20	52	32·74	129	10	32·6	2	0·70
443	Stone 11150	8·0	...	20	53	34·41	129	11	31·8	1	0·70
444	Stone 11156	7·0	...	20	54	13·41	123	21	6·5	5	0·78
445	Stone 11175	7·8	...	20	56	1·45	142	21	22·1	5	0·76
446	Stone 11186	7·3	...	20	57	44·24	127	41	30·7	2	0·78
447	Stone 11191	7·5	...	20	58	12·51	138	59	25·7	4	0·83
448	23 Capricorni θ	4·3	...	20	59	22·11	107	41	50·2	20	0·73
449	... ...	8·0	1	21	0	13·05	150	59	40·0	1	0·79
450	Stone 11227	6·8	...	21	1	58·69	134	40	55·2	5	0·79
451	Taylor 9809	5·7	...	21	5	33·65	129	54	2·0	5	0·75
452	Taylor 9843	6·6	...	21	9	53·94	139	12	11·1	5	0·75
453	Taylor 9889	6·7	...	21	14	52·11	119	39	40·8	5	0·76
454	33 Capricorni	5·7	...	21	17	31·27	111	20	51·0	5	0·76
455	Stone 11367	7·0	...	21	21	39·57	152	40	34·0	5	0·77

425.—Carrington 3128.

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
421	... ...	+ 4·0039	− 0·0280	...	− 11·510	− 0·474	...	...
422	Taylor 9415	+ 3·8643	− 0·0235	...	− 11·593	− 0·456	...	...
423	Stone 10939	+ 3·6848	− 0·0184	...	− 11·771	− 0·431	...	...
424	Taylor 9464	+ 3·5193	− 0·0141	...	− 11·977	− 0·408	...	...
425	R. P. L. 143	− 8·5987	− 1·2839	...	− 11·998	+ 1·010	...	...
426	2 Delphini ε	+ 2·8664	− 0·0013	− 0·001	− 12·042	− 0·330	+ 0·02	2642
427	Stone 11003	+ 3·8492	− 0·0251	...	− 12·374	− 0·438	...	...
428	Taylor 9519	+ 4·0340	− 0·0324	...	− 12·454	− 0·457	...	...
429	Taylor 9544	+ 3·9458	− 0·0294	...	− 12·566	− 0·445	...	...
430	Taylor 9561	+ 3·8308	− 0·0255	...	− 12·704	− 0·428	...	...
431	... ...	+ 3·8376	− 0·0239	...	− 12·732	− 0·429	...	...
432	Taylor 9573	+ 4·1458	− 0·0390	...	− 12·847	− 0·460	...	...
433	2 Aquarii ε	+ 3·2506	− 0·0084	− 0·000	− 12·979	− 0·356	+ 0·03	2681
434	... ...	+ 3·9933	− 0·0330	...	− 13·006	− 0·439	...	...
435	Taylor 9602	+ 3·5722	− 0·0174	...	− 13·046	− 0·391	...	...
436	Stone 11081	+ 3·9600	− 0·0321	...	− 13·156	− 0·431	...	...
437	Stone 11091	+ 4·3675	− 0·0517	...	− 13·201	− 0·475	...	...
438	... ...	+ 4·1030	− 0·0387	...	− 13·247	− 0·444	...	...
439	Stone 11103	+ 4·3151	− 0·0495	...	− 13·303	− 0·466	...	...
440	Stone 11115	+ 3·6107	− 0·0192	...	− 13·360	− 0·388	...	...
441	Stone 11120	+ 4·5302	− 0·0620	...	− 13·380	− 0·488	...	...
442	... ...	+ 3·8673	− 0·0301	...	− 13·711	− 0·407	...	...
443	Stone 11150	+ 3·8646	− 0·0302	...	− 13·777	− 0·405	...	...
444	Stone 11156	+ 3·7100	− 0·0240	...	− 13·819	− 0·387	...	...
445	Stone 11175	+ 4·3183	− 0·0533	...	− 13·932	− 0·448	...	...
446	Stone 11186	+ 3·8100	− 0·0288	...	− 14·039	− 0·392	...	...
447	Stone 11191	+ 4·1679	− 0·0464	...	− 14·069	− 0·429	...	...
448	23 Capricorni θ ...	+ 3·3748	− 0·0128	+ 0·004	− 14·141	− 0·344	+ 0·05	2733
449	... ...	+ 4·7754	− 0·0859	...	− 14·194	− 0·488	...	...
450	Stone 11227	+ 3·9991	− 0·0388	...	− 14·302	− 0·404	...	...
451	Taylor 9809	+ 3·8433	− 0·0320	...	− 14·521	− 0·382	...	...
452	Taylor 9843	+ 4·1193	− 0·0480	...	− 14·779	− 0·402	...	...
453	Taylor 9889	+ 3·5747	− 0·0217	...	− 15·070	− 0·339	...	...
454	33 Capricorni ..	+ 3·4126	− 0·0154	− 0·003	− 15·221	− 0·318	+ 0·12	2778
455	Stone 11367	+ 4·7211	− 0·0977	...	− 15·456	− 0·434	...	...

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Mean Positions of Stars for 1883, *January* 1*st*.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
456	R. P. L. 149	7·5	...	21	22	44·14	3	26	56·8	2	0·69
457	Stone 11390	6·0	...	21	25	48·27	135	21	53·9	5	0·75
458	Stone 11403	6·3	...	21	28	41·51	155	20	49·0	5	0·76
459	Stone 11428	6·5	...	21	32	3·73	124	12	14·8	5	0·75
460	Stone 11434	6·7	...	21	32	25·86	133	39	32·0	2	0·69
461	Taylor 10073	7·0	...	21	36	6·41	146	0	23·7	5	0·75
462	Stone 11470	7·3	..	21	37	46·37	128	58	35·3	3	0·71
463	8 Pegasi ϵ	2·4	...	21	38	26·36	80	39	38·6	20	0·82
464	Taylor 10109	5·8	...	21	40	38·78	137	50	3·2	5	0·75
465	Taylor 10164	6·5	...	21	48	14·60	143	0	53·8	5	0·75
466	Taylor 10172	5·8	...	21	49	19·96	127	48	27·0	5	0·75
467	Stone 11555	6·7	...	21	51	15·87	134	37	5·7	5	0·79
468	... ...	8·3	2	21	52	5·53	132	36	2·3	3	0·70
469	Taylor 10192	5·8	...	21	52	13·27	128	57	12·0	5	0 81
470	Stone 11574	6·9	...	21	53	59·54	127	6	56·5	5	0·76
471	Taylor 10232	6·1	...	21	57	57·30	117	23	18·1	6	0 75
472	Stone 11601	6·9	...	21	58	48·87	134	31	59·0	2	0·70
473	34 Aquarii α	3·2	...	21	59	46·40	90	53	17·0	21	0·85
474	Stone 11610	8·0	...	22	0	9·06	120	11	10·3	5	0·76
475	43 Aquarii θ	4·3	...	22	10	39·50	98	21	56·3	23	0·84
476	48 Aquarii γ	4·1	...	22	15	36·71	91	58	34·3	10	0·75
477	78 Aquarii λ	3·8	...	22	46	30·49	98	12	6·6	15	0·83
478	54 Pegasi α (*Markab*) ...	2·6	...	22	58	55·91	75	25	27·9	11	0·85
479	6 Piscium γ	3·8	..	23	11	5·91	87	21	24·5	8	0·92
480	R. P. L. 158	5·7	...	23	27	49·68	3	20	16·9	10	0·83

480.—Groombridge 4101.

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
456	R. P. L. 149	− 10·9818	− 3·1234	...	− 15·515	+ 1·022	...	...
457	Stone 11390	+ 3·9161	− 0·0416	...	− 15·684	− 0·350	...	...
458	Stone 11403	+ 4·8588	− 0·1166	...	− 15·840	− 0·430	...	...
459	Stone 11428	+ 3·6190	− 0·0265	...	− 16·019	− 0·312	...	...
460	Stone 11434	+ 3·8382	− 0·0389	...	− 16·038	− 0·330	...	...
461	Taylor 10073 ...	+ 4·2368	− 0·0679	...	− 16·230	− 0·357	..	...
462	Stone 11470	+ 3·7012	− 0·0323	...	− 16·315	− 0·308	...	...
463	8 Pegasi ε	+ 2·9451	− 0·0005	+ 0·001	− 16·348	− 0·242	− 0·01	2835
464	Taylor 10109 ...	+ 3·9157	− 0·0466	...	− 16·459	− 0·320	...	...
465	Taylor 10164 ...	+ 4·0375	− 0·0588	...	− 16·830	− 0·315	...	...
466	Taylor 10172 ...	+ 3·6322	− 0·0309	...	− 16·881	− 0·280	...	...
467	Stone 11555	+ 3·7749	− 0·0407	...	− 16·973	− 0·287	...	...
468	... ...	+ 3·7234	− 0·0375	...	− 17·010	− 0·282	...	...
469	Taylor 10192 ...	+ 3·6442	− 0·0323	...	− 17·017	− 0·275	...	...
470	Stone 11574	+ 3·6009	− 0·0300	...	− 17·099	− 0·269	...	...
471	Taylor 10232 ...	+ 3·4240	− 0·0204	...	− 17·277	− 0·248	...	...
472	Stone 11601	+ 3·7359	− 0·0405	...	− 17·315	− 0·269	...	..
473	34 Aquarii α	+ 3·0828	− 0·0041	− 0·001	− 17·358	− 0·219	− 0·00	2890
474	Stone 11610	+ 3·4607	− 0·0228	...	− 17·375	− 0·245	...	...
475	43 Aquarii θ	+ 3·1626	− 0·0075	+ 0·006	− 17·814	− 0·205	+ 0·02	2929
476	48 Aquarii γ	+ 3·0927	− 0·0042	+ 0·007	− 18·009	− 0·191	− 0·02	2943
477	73 Aquarii λ	+ 3·1331	− 0·0063	− 0·002	− 19·032	− 0·137	− 0·04	3019
478	54 Pegasi α	+ 2·9808	+ 0·0056	+ 0·003	− 19·346	− 0·107	+ 0·03	3050
479	6 Piscium γ	+ 3·0592	+ 0·0005	+ 0·049	− 19·599	− 0·087	− 0·02	3082
480	R. P. L. 158	− 0·1339	− 0·5501	+ 0·084	− 19·857	+ 0·011	+ 0·00	3147

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SEPARATE RESULTS

OF

OBSERVATIONS

OF THE FIXED STARS

MADE WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1884

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Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
1		8 *Ceti* ι			
Jan. 2	...	0 13 31·07	...	99 28 1·1	M
Nov. 14	...	13 30·93	...	28 1·6	R
15	...	13 30·93	...	28 1·9	R
17	...	13 30·96	..	28 2·0	R
23	...	13 30·94	...	28 0·4	R
29	...	13 31·05	...	28 1·7	R
Dec. 1	...	13 31·04	...	28 1·5	R
3	...	13 31·16	...	28 2·5	M
4	...	13 31·02	...	28 3·1	M
11	...	13 30·97	...	28 2·6	M
12	...	13 31·04	...	28 3·2	M
23	...	13 30·99	...	28 0·1	R
24	...	13 31·05	...	28 1·3	R
2		12 *Ceti.*			
Jan. 2	...	0 24 7·14	...	94 35 54·4	M
3	...	24 7·16	...	35 55·5	M
3		16 *Ceti* β			
Jan. 1	...	0 37 46·10	...	108 37 25·1	M
2	...	37 45·87	...	37 26·5	M
4		58 *Piscium.*			
Nov. 15	...	0 40 58·25	...	78 39 32·8	R
5		63 *Piscium* δ			
Jan. 2	...	0 42 39·68	...	83 2 47·6	M
3	...	42 39·72	...	2 48·0	M
5	...	42 39·91	...	2 47·2	M
6		*R. P. L.* 10.			
Jan. 3	...	0 51 41·18	2	1 35 54·6	M
Oct. 28	...	51 42·08	3	35 53·6	M
Nov. 17	...	51 44·22	3	35 55·0	R
18	...	51 43·31	3	35 56·6	R
26	...	51 40·13	3	35 53·3	R
29	...	51 41·05	3	35 55·2	R
Dec. 3	...	51 41·29	3	35 54·4	M
4	...	51 41·98	3	35 54·4	M
Dec. 11	...	0 51 42·18	2	1 35 54·5	M
12	...	51 41·56	3	35 55·1	M
23	...	51 41·40	3	35 54·5	R
26	...	51 42·05	3	35 52·7	R
27	...	51 41·33	3	35 54·3	R
29	...	51 42·22	3	35 54·5	M
31	...	51 41·98	3	35 54·4	M
		R. P. L. 10—*s.p.*			
Apl. 24	...	0 51 41·15	3	1 35 55·8	R
7		2 *Ursæ Minoris.*			
Jan. 2	...	0 53 5·22	3	4 21 55·9	M
8		*R. P. L.* 14—*s.p*			
Apl. 17	...	0 56 46·76	3	3 28 23·5	R
9		43 *Andromedæ* β, *Mirach.*			
Jan. 5	...	1 3 14·32	...	54 59 40·1	M
7	...	3 14·39	...	59 40·6	M
Nov. 15	...	3 14·28	...	59 41·1	R
17	...	3 14·22	...	59 41·5	R
18	...	3 14·20	..	59 43·2	R
26	...	3 14·31	...	59 40·3	R
29	...	3 14·24	...	59 40·5	R
Dec. 1	...	3 14·27	...	59 39·9	R
29	...	3 14·33	...	59 42·2	M
30	...	3 14·26	...	59 40·6	M
31	...	3 14·30	...	59 39·7	M
10		*R. P. L.* 18.			
Nov. 17	...	1 13 54·77	3	2 2 32·0	R
18	...	13 54·15	3	2 35·8	R
11		1 *Ursæ Minoris* α, *Polaris.*			
Jan. 8	...	1 16 13·52	3	1 18 35·5	M
9	...	16 13·39	3	18 33·6	M
Nov. 26	...	16 12·52	3	18 33·5	R

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Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
1 *Ursæ Minoris a, Polaris—s.p.*					
Apl. 22	...	1 16 13·04	3	1 18 36·2	R
24	...	16 13·62	3	18 38·6	R
25	...	16 12·01	3	18 37·6	R
12 99 *Piscium η*					
Jan. 1	...	1 25 16·45	...	75 15 8·9	M
13 *Lalande* 2806.					
Dec. 23	8·5	1 26 36·10	..	77 26 5·7	R
24	8·5	26 36·27	...	26 6·3	R
26	8·5	26 36·24	...	26 6·6	R
27	8·5	26 36·24	...	26 6·8	R
29	8·5	26 36·23	...	26 9·3	M
14 110 *Piscium o*					
Nov. 18	...	1 39 16·23	...	81 25 35·4	R
22	...	39 16·05	...	25 34·4	R
26	...	39 16·06	...	25 34·8	R
29	...	39 16·12	...	25 34·5	R
Dec. 1	...	39 16·11	...	25 33·7	R
3	...	39 16·12	...	25 35·7	M
4	...	39 16·12	...	25 36·3	M
11	...	39 16·06	...	25 36·7	M
12	...	39 16·03	...	25 36·2	M
23	...	39 16·10	...	25 33·7	R
15 8 *Arietis ι*					
Jan. 7	...	1 51 0·69	...	72 44 56·9	M
8	...	51 0·71	...	44 57·9	M
16 13 *Arietis a*					
Jan. 1	...	2 0 37·93	...	67 5 11·7	M
2	...	0 38·10	...	5 13·3	M
17 67 *Ceti.*					
Jan. 1	...	2 11 11·88	...	96 57 26·9	M
2	...	11 11·86	...	57 25·9	M
3	...	11 11·88	...	57 26·3	M
5	...	11 11·81	...	57 27·4	M
18 *R. P. L.* 26.					
Jan. 2	...	2 27 44·64	3	3 27 32·5	M
19 43 *Arietis σ*					
Jan. 5	...	2 45 5·34	...	75 23 45·9	M
7	...	45 5·29	...	23 47·5	M
8	...	45 5·41	...	23 46·7	M
Nov. 18	...	45 5·28	...	23 46·8	R
22	...	45 5·37	...	23 45·7	R
26	...	45 5·31	...	23 45·7	R
Dec. 3	...	45 5·21	...	23 46·3	M
4	...	45 5·26	...	23 45·9	M
11	...	45 5·32	...	23 46·1	M
12	...	45 5·26	...	23 47·3	M
23	...	45 5·37	...	23 47·0	R
24	...	45 5·26	...	23 45·4	R
26	...	45 5·25	...	23 47·1	R
20 *Stone* 1223.					
Jan. 2	...	2 52 29·74	...	154 28 29·6	M
8	...	52 29·79	...	28 30·9	M
21 92 *Ceti a, Menkar.*					
Jan. 9	...	2 56 12·98	..	86 21 59·3	M
10	...	56 12·98	...	21 59·6	M
22 57 *Arietis δ*					
Jan. 5	...	3 4 59·71	...	70 42 45·8	M
10	...	4 59·80	...	42 45·6	M
21	...	4 59·86	...	42 46·9	M
22	...	4 59·79	...	42 46·7	M
23	...	4 59·78	...	42 46·5	M
24	...	4 59·68	...	42 46·5	M
Dec. 3	...	4 59·64	...	42 47·2	M
4	...	4 59·69	...	42 48·3	M
23 *R. P. L.* 33.—*s.p.*					
June 21	...	3 5 1·34	2	5 30 11·9	M

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Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
24	1 *Tauri o, Var.* 5.				
Jan. 2	...	3 18 34·23	...	81 22 48·8	M
7	...	18 34·33	...	22 49·5	M
9	...	18 34·28	...	22 49·8	M
21	...	18 34·13	...	22 49·6	M
22	...	18 34·29	5	22 47·4	M
23	...	18 34·36	1	22 48·0	M
25	*R. P. L.* 34—*s.p.*				
June 20	...	3 28 39·17	3	3 43 19·7	M
24	...	28 38·72	3	43 18·0	R
28	...	28 40·58	3	43 17·3	R
26	25 *Tauri η, Alcyone.*				
Jan. 2	...	3 40 35·36	...	66 15 19·2	M
5	...	40 35·29	...	15 18·5	M
27	34 *Eridani* γ^1				
Jan. 7	...	3 52 36·98	...	103 50 23·5	M
8	...	52 37·12	...	50 23·3	M
9	...	52 37·05	...	50 24·1	M
10	...	52 36·91	...	50 23·5	M
21	...	52 37·11	...	50 21·3	M
22	...	52 36·96	...	50 23·0	M
28	*R. P. L.* 35.				
Jan. 7	...	4 0 29·79	3	4 45 6·5	M
9	...	0 31·11	3	45 10·1	M
21	...	0 31·88	3	45 6·6	M
22	...	0 30·43	3	45 8·6	M
29	74 *Tauri ϵ*				
Jan. 7	...	4 21 50·62	...	71 4 39·7	M
8	...	21 50·42	...	4 42·0	M
9	...	21 50·46	...	4 41·0	M
30	87 *Tauri a, Aldebaran.*				
Jan. 7	...	4 29 15·73	...	73 43 28·9	M
9	...	29 15·79	...	43 29·3	M
21	...	29 15·83	...	43 30·8	M

Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
31	19 *Orionis β, Rigel.*				
Jan. 9	...	5 8 57·81	...	98 20 13·8	M
32	112 *Tauri β*				
Jan. 8	...	5 18 57·45	...	61 29 34·1	M
33	*R. P. L.* 40.				
Jan. 9	...	5 24 55·15	3	4 51 57·1	M
21	...	24 56·66	3	51 56·5	M
22	...	24 55·66	3	51 55·9	M
34	34 *Orionis δ, Var.* 1.				
Jan. 24	...	5 26 4·84	...	90 23 5·4	M
28	...	26 4·88	...	23 8·9	M
35	*R. P. L.* 41.				
Jan. 23	...	5 29 32·98	3	4 44 55·9	M
36	46 *Orionis ϵ*				
Jan. 24	...	5 30 19·76	...	91 16 38·9	M
37	58 *Orionis a, Var.* 2, *Betelgeux.*				
Jan. 21	...	5 48 53·49	...	82 36 58·5	M
22	...	48 53·46	...	36 57·3	M
23	...	48 53·42	...	36 57·2	M
24	...	48 53·37	...	36 57·2	M
28	...	48 53·39	...	36 58·4	M
30	...	48 53·47	...	36 56·7	M
31	...	48 53·42	...	36 56·8	M
Feb. 2	...	48 53·66	...	36 56·5	R
5	...	48 53·54	...	36 56·5	R
38	*R. P. L.* 43.				
Jan. 21	...	6 0 56·40	3	3 14 15·9	M

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Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
R. P. L. 43—*s.p.*					
June 21	...	6 0 54·75	3	3 14 16·9	M
July 18	...	0 55·39	3	14 19·9	M
39 **13 *Geminorum* μ**					
Jan. 30	...	6 15 56·51	...	67 25 43·8	M
40 ***Anon.***					
Jan. 22	8·0	6 36 52·07	4	130 22 0·1	M
41 **51 *Cephei* (*Hev.*).**					
Jan. 21	...	6 45 47·62	3	2 46 28·6	M
23	...	45 46·58	3	46 28·3	M
24	...	45 47·16	3	46 28·5	M
26	...	45 46·91	3	46 29·8	M
51 *Cephei* (*Hev.*)—*s.p.*					
Aug. 7	...	6 45 46·47	3	2 46 33·4	R
13	...	45 46·46	3	46 32·5	R
19	...	45 46·46	3	46 27·0	R
20	...	45 45·95	2	46 31·4	R
42 ***Anon.***					
Jan. 30	10·0	6 52 58·09	6	152 55 52·5	M
43 **21 *Canis Majoris* ε**					
Jan. 28	...	6 54 4·01	...	118 48 53·4	M
44 **23 *Canis Majoris* γ**					
Jan. 22	...	6 58 30·73	...	105 27 44·5	M
45 ***Anon.***					
Jan. 24	9·0	7 1 47·71	...	60 51 51·2	M
46 **10 *Canis Minoris* α, *Procyon*.**					
Jan. 30	...	7 33 13·74	...	84 28 42·5	M
47 **R. P. L. 45—*s.p.***					
Sep. 13	...	7 39 55·27	3	1 1 32·9	R
16	...	39 54·36	3	1 34·6	M
Oct. 3	...	39 55·84	3	1 32·8	M
6	...	39 53·74	3	1 31·8	M
7	...	39 52·74	2	1 32·0	M
8	...	39 53·74	3	1 33·3	M
9	...	39 54·11	3	1 33·7	M
10	...	39 54·63	3	1 32·8	M
48 **ξ *Argûs*.**					
Jan. 31	...	7 44 25·08	...	114 34 8·3	M
Feb. 2	...	44 24·89	...	34 9·6	R
5	...	44 24·89	...	34 8·7	R
7	...	44 24·82	...	34 7·0	R
13	...	44 24·89	...	34 8·6	R
16	...	44 24·82	...	34 9·5	R
19	...	44 24·92	...	34 9·1	R
22	...	44 24·80	...	34 8·8	R
26	...	44 24·70	...	34 8·4	R
29	...	44 24·72	...	34 8·3	R
49 **R. P. L. 48—*s.p.***					
Sep. 10	...	7 47 5·92	3	3 58 16·4	R
11	...	47 5·41	3	58 15·9	R
24	...	47 5·80	3	58 15·4	M
Oct. 4	...	47 5·94	3	58 15·1	M
50 **R. P. L. 49.**					
Jan. 30	...	7 49 0·68	3	5 36 38·9	M
31	...	49 0·52	3	36 38·7	M
R. P. L. 49—*s.p.*					
Aug. 18	...	7 48 59·77	3	5 36 35·9	R
Oct. 11	...	49 0·99	3	36 41·7	M
13	...	49 0·91	3	36 42·9	M
51 **15 *Argûs* ρ**					
Jan. 31	...	8 2 36·18	...	113 58 14·3	M
Feb. 2	...	2 36·08	...	58 14·2	R
5	...	2 36·16	...	58 13·4	R

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Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
Feb. 7	...	8 2 36·10	...	113 58 12·7	R
9	...	2 36·15	...	58 12·3	R
13	..	2 36·15	...	58 13·7	R
16	...	2 36·19	...	58 13·4	R
19	...	2 36·11	...	58 13·8	R
22	...	2 36·10	...	58 14·0	R
52	*R. P. L.* 53—*s.p.*				
Sep. 10	...	8 20 54·38	3	4 32 26·5	R
24	...	20 55·95	3	32 25·6	M
53	33 *Cancri* η				
Feb. 5	...	8 26 0·03	...	69 9 55·5	R
7	...	26 0·14	...	9 55·3	R
54	*R. P. L.* 55—*s.p.*				
Oct. 2	...	8 31 44·57	3	5 41 4·5	M
3	...	31 45·98	3	41 2·9	M
55	11 *Hydræ* ϵ				
Feb. 7	...	8 40 37·96	...	83 9 21·2	R
9	...	40 37·95	...	9 22·4	R
56	*R. P. L.* 60.				
Feb. 2	...	8 50 57·75	3	5 21 21·7	R
5	...	50 57·72	3	21 23·2	R
	R. P. L. 60—*s.p.*				
Sep. 10	...	8 50 57·40	3	5 21 22·8	R
24	...	50 57·17	3	21 24·4	M
Oct. 3	...	50 57·70	3	21 20·6	M
57	65 *Cancri a*				
Feb. 9	...	8 52 8·54	...	77 41 38·1	R
58	*Anon.*				
Feb. 7	9·0	8 54 40·51	...	132 59 53·3	R
59	76 *Cancri* κ				
Feb. 9	...	9 1 27·81	...	78 51 57·0	R
60	83 *Cancri.*				
Feb. 13	...	9 12 30·47	...	71 48 10·2	R
16	...	12 30·46	...	48 11·7	R
61	*R. P. L.* 62—*s.p.*				
Oct. 1	...	9 21 48·35	3	2 21 41·0	M
3	...	21 49·26	3	21 47·1	M
4	...	21 48·82	3	21 46·1	M
8	...	21 48·19	3	21 47·0	M
62	30 *Hydræ a, Var.* 2.				
Sep. 18	...	9 21 53·17	...	98 9 22·7	R
19	...	21 53·33	...	9 22·0	R
63	2 *Leonis* ω				
Feb. 9	...	9 22 14·70	...	80 26 16·3	R
64	*Lacaille* 3980.				
Feb. 7	9·0	9 35 5·72	...	148 39 5·2	R
65	*R. P. L.* 69—*s.p.*				
Oct. 1	...	9 39 8·47	3	2 52 12·1	M
6	...	39 10·78	3	52 12·0	M
66	17 *Leonis* ϵ				
Feb. 22	...	9 39 16·20	...	65 41 32·4	R
26	...	39 16·08	...	41 32·1	R
67	*R. P. L.* 70.				
Feb. 7	...	9 49 50·02	3	5 31 24·3	R
9	...	49 49·98	3	31 25·2	R
13	...	49 49·59	3	31 23·0	R
16	...	49 49·76	3	31 23·2	R

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Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
		R. P. L.* 70.—*s.p.			
Sep. 24	...	9 49 50·82	3	5 31 27·2	M
68		**32 *Leonis a, Regulus.***			
Feb. 26	...	10 2 11·67	...	77 27 56·7	R
29	...	2 11·60	...	27 54·9	R
Apl. 16	...	2 11·56	...	27 55·4	R
69		***R. P. L.* 72.**			
Apl. 17	...	10 12 36·53	3	5 9 35·4	R
18	...	12 36·64	3	9 35·1	R
21	...	12 36·46	3	9 36·1	R
22	...	12 37·30	3	9 35·4	R
		R. P. L.* 72.—*s.p.			
Sep. 24	...	10 12 36·87	3	5 9 36·9	M
Oct. 1	...	12 36·66	3	9 37·1	M
70		**41 *Leonis* γ^1**			
Feb. 29	...	10 13 34·54	...	69 34 19·5	R
Apl. 16	...	13 34·56	...	34 19·6	R
19	...	13 34·56	...	34 19·0	R
71		***W. B. E.* X. 336.**			
Apl. 16	9·0	10 21 7·84	...	92 27 41·8	R
18	9·0	21 7·69	...	27 40·8	R
19	9·0	21 7·81	...	27 41·4	R
22	9·0	21 7·59	..	27 41·0	R
24	9·0	21 7·60	...	27 41·2	R
72		***Anon.***			
Apl. 17	7·5	10 21 42·37	...	92 55 39·1	R
21	7·5	21 42·17	...	55 39·6	R
23	...	21 42·02	...	55 38·8	R
25	7·5	21 42·27	...	55 38·4	R
26	7·5	21 42·29	...	55 38·9	R
73		**47 *Leonis* ρ**			
Apl. 17	...	10 26 42·18	...	80 5 47·6	R
74		***Yarnall* 4465.**			
Apl. 28	5·6	10 37 6·32	...	66 12 16·4	R
29	5·6	37 6·41	...	12 15·5	R
30	5·6	37 6·43	4	12 16·0	R
May 1	5·6	37 6·35	...	12 17·5	M
2	5·6	37 6·45	...	12 17·7	M
75		***Anon.***			
Apl. 16	9·0	10 39 7·37	...	65 48 41·5	R
17	9·0	39 7·35	...	48 41·3	R
22	9·0	39 6·89	...	48 41·2	R
24	9·0	39 7·03	...	48 39·4	R
76		***Anon.***			
Apl. 18	9·0	10 41 36·80	...	66 3 1·2	R
21	9·0	41 37·02	...	3 1·0	R
23	9·0	41 36·81	...	2 59·8	R
25	9·0	41 36·86	...	2 59·7	R
26	9·0	41 36·83	...	2 59·7	R
77		**53 *Leonis l.***			
Apl. 17	...	10 43 9·55	...	78 50 26·9	R
78		**63 *Leonis* χ**			
Apl. 16	...	10 59 1·97	...	82 2 12·4	R
17	...	59 1·98	...	2 12·5	R
79		***R. P. L.* 79.—*s.p.***			
Oct. 1	...	11 0 33·92	3	1 43 49·0	M
2	...	0 33·57	3	43 47·4	M
4	...	0 33·08	2	43 49·1	M
6	...	0 32·54	3	43 46·6	M
8	...	0 31·96	3	43 48·6	M
9	...	0 32·36	3	43 48·6	M
10	...	0 33·41	3	43 47·0	M
80		**68 *Leonis* δ**			
Apl. 18	...	11 7 56·37	...	68 50 27·6	R
19	...	7 56·27	...	50 27·8	R

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Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
81		84 *Leonis* τ			
Apl. 22	...	11 21 58·26	...	86 30 17·4	R
23	...	21 58·25	...	30 16·4	R
24	...	21 58·25	...	30 15·9	R
25	...	21 58·24	...	30 16·5	R
26	...	21 58·27	...	30 16·4	R
28	...	21 58·26	...	30 16·8	R
29	...	21 58·27	...	30 16·3	R
30	...	21 58·24	...	30 17·8	R
May 1	...	21 58·32	...	30 19·3	M
2	...	21 58·29	...	30 18·8	M
82		94 *Leonis* β			
Apl. 18	...	11 43 8·59	...	74 46 45·7	R
83		*R. P. L.* 87—*s.p.*			
Oct. 27	...	11 53 36·38	3	2 21 29·9	M
28	...	53 36·78	3	21 31·2	M
Nov. 26	...	53 35·17	3	21 35·3	R
29	...	53 34·33	3	21 34·0	R
Dec. 1	...	53 34·36	3	21 35·1	R
84		8 *Virginis* π			
Apl. 22	...	11 54 55·73	...	82 44 18·8	R
23	...	54 55·70	...	44 17·8	R
24	...	54 55·70	...	44 16·7	R
25	...	54 55·77	..	44 17·3	R
26	...	54 55·72	...	44 17·4	R
28	...	54 55·68	...	44 18·8	R
29	...	54 55·71	...	44 17·8	R
30	...	54 55·65	...	44 18·2	R
May 1	...	54 55·69	...	44 19·9	M
2	...	54 55·74	...	44 18·5	M
85		*Anon.*			
Apl. 26	9·0	11 58 39·53	...	86 44 0·8	R
28	9·0	58 39·58	...	44 3·1	R
29	9·0	58 39·66	...	44 2·2	R
30	9·0	58 39·71	...	44 2·6	R
May 1	9·0	58 39·67	...	44 1·9	M

Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
86		*R. P. L.* 89.			
Apl. 16	...	11 58 51·10	3	3 46 10·4	R
17	...	58 53·71	3	46 9·7	R
18	...	58 53·93	3	46 10·2	R
19	...	58 53·72	3	46 11·6	R
		R. P. L. 89—*s.p.*			
Nov. 17	...	11 58 48·49	3	3 46 13·9	R
18	...	58 48·12	2	46 10·4	R
87		2 *Corvi* ϵ			
Apl. 18	...	12 4 9·43	.	111 58 25·6	R
88		*R. P. L.* 92.			
Apl. 17	...	12 13 27·27	3	2 55 6·8	R
		R. P. L. 92—*s.p.*			
Oct. 28	...	12 13 27·27	3	2 55 8·3	M
Nov. 26	...	13 27·98	3	55 12·2	R
89		15 *Virginis* η			
Apl. 16	...	12 13 58·22	...	90 1 20·0	R
19	...	13 58·23	...	1 20·4	R
21	...	13 58·19	...	1 19·0	R
90		*R. P. L.* 93.			
Apl. 22	...	12 14 20·80	3	1 39 24·6	R
		R. P. L. 93—*s.p.*			
Nov. 18	...	12 14 22·58	3	1 39 28·1	R
91		*Lalande* 23300.			
Apl. 16	8·7	12 21 50·01	...	91 44 16·0	R
17	8·7	21 49·93	...	44 15·3	R
18	8·7	21 49·82	...	44 15·9	R
19	8·7	21 49·75	...	44 16·0	R
21	8·7	21 49·74	...	44 16·2	R

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Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
92		*R. P. L.* 97—*s.p.*			
Oct. 28	...	12 37 34·07	3	5 43 8·3	M
93		*R. P. L.* 99.			
Apl. 17	...	12 48 16·79	3	5 57 22·4	R
18	...	48 16·62	3	57 22·5	R
94		47 *Virginis* ε, *Vindemiatrix.*			
Apl. 22	...	12 56 24·18	...	78 25 0·7	R
23	...	56 24·21	...	24 59·9	R
24	...	56 24·19	...	24 58·7	R
25	...	56 24·15	...	24 59·0	R
26	...	56 24·16	...	24 59·8	R
28	...	56 24·21	...	24 59·6	R
29	...	56 24·17	...	24 59·4	R
30	...	56 24·26	...	24 59·5	R
May 1	...	56 24·13	...	25 1·5	M
2	...	56 24·12	...	25 1·7	M
95		*R. P. L.* 100—*s.p.*			
Dec. 3	...	13 0 23·49	3	3 29 27·2	M
4	...	0 23·39	3	29 28·6	M
11	...	0 23·44	3	29 31·3	M
12	...	0 23·50	3	29 33·4	M
23	...	0 23·18	3	29 29·2	R
96		*R. P. L.* 101—*s.p.*			
Jan. 2	...	13 6 56·98	3	1 43 41·7	M
3	...	6 57·55	3	43 39·9	M
Dec. 26	...	6 57·81	3	43 42·8	R
27	...	6 56·80	3	43 41·6	R
97		67 *Virginis a, Spica.*			
Apl. 21	...	13 19 4·82	...	100 33 18·2	R
98		*R. P. L.* 103.			
Apl. 26	...	13 19 18·47	3	4 38 19·0	R
28	...	19 19·76	3	38 18·8	R
		R. P. L. 103—*s.p.*			
Jan. 2	...	13 19 21·20	3	4 38 24·8	M
3	...	19 20·55	3	38 20·3	M
Nov. 29	...	19 19·65	3	38 19·2	R
Dec. 1	...	19 21·47	3	38 22·4	R
3	...	19 18·61	3	38 20·4	M
4	...	19 20·96	3	38 22·9	M
11	...	19 20·28	3	38 20·3	M
99		8 *Bootis* η			
Apl. 21	...	13 49 9·81	...	71 1 13·0	R
100		93 *Virginis* τ			
June 21	...	13 55 44·66	...	87 53 35·1	M
24	...	55 44·73	...	53 34·9	R
101		*R. P. L.* 108.			
June 21	...	14 1 20·48	2	3 41 9·6	M
28	...	1 22·89	3	41 10·7	R
102		16 *Bootis a, Arcturus.*			
June 20	...	14 10 22·30	...	70 12 44·0	M
24	...	10 22·18	...	12 46·1	R
25	...	10 22·15	...	12 46·6	R
103		25 *Bootis* ρ			
June 20	...	14 26 49·78	...	53 7 5·7	M
104		36 *Bootis* ϵ^2, *Mirac.*			
June 20	...	14 39 55·23	...	62 26 8·1	M
21	...	39 55·13	...	26 10·4	M
23	...	39 55·18	...	26 11·0	R
24	...	39 55·13	...	26 8·0	R
105		9 *Libræ* a^2			
June 21	...	14 44 27·86	...	105 33 28·6	M
25	...	44 27·79	...	33 28·2	R
26	...	44 27·78	...	33 26·9	M

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Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
106 *T Trianguli Australis, Var.*					
June 24	7·0	14 58 57·30	...	158 16 20·3	R
25	...	58 57·22	3	16 21·5	R
107 *R. P. L.* 111.					
June 24	...	15 3 26·58	3	5 35 58·8	R
28	...	3 27·89	3	36 0·8	R
July 14	...	3 27·02	3	35 58·9	M
17	...	3 27·43	3	35 58·1	M
18	...	3 26·88	3	35 58·5	M
R. P. L. 111.—*s.p.*					
Jan. 8	...	15 3 27·42	3	5 36 6·1	M
9	...	3 27·21	3	36 3·8	M
108 27 *Libræ β*					
June 20	...	15 10 45·85	...	98 57 14·8	M
25	...	10 45·82	...	57 14·3	R
26	...	10 45·89	...	57 14·2	R
109 *Redhill* 2293.—*s.p.*					
Nov. 29	...	15 11 46·31	3	4 25 39·8	R
110 *R. P. L.* 114.					
July 14	...	15 15 0·57	3	2 19 22·1	M
17	...	14 59·64	3	19 20·8	M
111 5 *Coronæ Borealis a, Alpheta.*					
June 26	...	15 29 46·48	...	62 53 34·7	R
July 14	...	29 46·45	...	53 40·0	M
18	...	29 46·43	...	53 40·3	M
19	...	29 46·53	...	53 40·7	M
22	...	29 46·63	...	53 37·3	M
23	...	29 46·49	...	53 38·7	M
24	...	29 46·62	...	53 39·1	M

Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
112 24 *Serpentis a*					
June 21	...	15 38 33·31	...	83 12 30·4	M
28	...	38 33·28	...	12 31·2	R
July 14	...	38 33·33	...	12 32·6	M
17	...	38 33·29	...	12 30·6	M
18	...	38 33·30	...	12 31·2	M
19	...	38 33·36	...	12 31·7	M
22	...	38 33·20	...	12 33·1	M
23	...	38 33·31	...	12 33·5	M
24	...	38 33·30	...	12 30·4	M
25	...	38 33·33	...	12 30·9	M
113 *R. P. L.* 115.					
June 20	...	15 45 12·50	3	4 47 32·4	M
114 16 *Ursæ Minoris ζ*					
June 21	...	15 48 13·52	...	11 50 55·6	M
115 8 *Scorpii* β^1					
June 21	...	15 58 41·51	...	109 29 10·9	M
23	...	58 41·62	...	29 10·7	R
28	...	58 41·64	...	29 11·7	R
July 14	...	58 41·66	...	29 12·1	M
17	...	58 41·55	...	29 12·8	M
116 *R. P. L.* 116.					
June 24	...	16 0 34·43	3	4 22 0·4	R
R. P. L. 116.—*s.p.*					
Jan. 8	...	16 0 36·07	3	4 22 4·7	M
117 1 *Ophiuchi δ*					
June 20	...	16 8 15·91	...	93 23 39·0	M
23	...	8 15·95	...	23 40·2	R
118 21 *Scorpii a, Antares.*					
June 20	...	16 22 17·68	...	116 10 23·2	M
21	...	22 17·82	...	10 25·9	M

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Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
119		40 *Herculis* ζ			
June 21	...	16 36 54·62	...	58 11 11·0	M
28	...	36 54·73	...	11 11·3	R
July 14	...	36 54·77	...	11 11·9	M
120		22 *Ursæ Minoris* ϵ—*s.p.*			
Jan. 7	...	16 57 53·10	5	7 46 30·4	M
121		*R. P. L.* 118.			
July 14	...	17 1 48·75	3	5 8 39·2	M
122		*G. Z. C.* XVII. 421.			
Aug. 23	...	17 7 0·73	...	130 55 11·6	R
123		64 *Herculis a, Var.* 1.			
July 14	...	17 9 21·44	...	75 28 34·5	M
17	...	9 21·41	...	28 33·7	M
18	...	9 21·52	...	28 33·6	M
124		*Anon.*			
Aug. 18	9·0	17 14 42·41	...	126 23 49·7	R
20	9·0	14 42·56	...	23 49·2	R
21	9·0	14 42·42	...	23 49·3	R
23	9·0	14 42·36	...	23 49·1	R
26	9·0	14 42·35	4	23 48·5	R
125		*Taylor* 8070.			
Aug. 20	6·5	17 21 5·37	...	126 40 45·3	R
21	6·5	21 5·36	...	40 45·8	R
23	6·5	21 5·18	...	40 45·8	R
26	6·5	21 5·16	...	40 48·6	R
Sep. 1	6·5	21 5·07	...	40 46·0	R
126		35 *Scorpii* λ			
Aug. 20	...	17 25 44·15	...	127 1 3·0	R
25	...	25 44·06	...	1 4·7	R
26	...	25 44·12	...	1 4·8	R
Sep. 1	...	25 43·86	...	1 2·5	R
127		*Stone* 9578.			
Aug. 21	...	17 28 15·11	...	146 44 40·0	R
23	...	28 14·88	...	44 40·7	R
128		55 *Ophiuchi a*			
June 20	...	17 29 32·99	...	77 21 17·6	M
129		*R. P. L.* 120.			
June 21	...	17 31 35·22	3	5 17 25·2	M
July 18	...	31 35·79	3	17 26·6	M
130		*Anon.*			
Sep. 1	7·5	17 34 30·28	...	125 44 21·4	R
8	7·5	34 30·40	...	44 21·6	R
10	7·5	34 30·35	...	44 22·1	R
11	7·5	34 30·28	...	44 22·4	R
13	7·5	34 30·40	4	44 24·4	R
131		60 *Ophiuchi* β			
Aug. 18	...	17 37 44·45	...	85 22 58·2	R
19	...	37 44·44	...	22 58·9	R
20	...	37 44·52	...	22 57·9	R
21	...	37 44·45	...	22 58·9	R
23	...	37 44·50	...	23 0·1	R
25	...	37 44·45	...	23 0·8	R
26	...	37 44·47	...	22 57·9	R
Sep. 10	...	37 44·49	...	22 57·7	R
11	..	37 44·48	...	22 57·9	R
13	...	37 44·58	...	22 59·2	R
132		86 *Herculis* μ			
July 22	...	17 41 55·12	...	62 12 41·3	M
23	...	41 55·23	...	12 37·0	M
24	...	41 55·00	...	12 36·9	M
25	...	41 54·95	...	12 37·7	M
133		*Anon.*			
July 26	8·5	17 42 56·34	...	143 28 18·1	M
Aug. 5	8·0	42 56·53	4	28 21·4	R

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Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
134		*72 Ophiuchi.*			
Aug. 18	...	18 1 50·93	...	80 27 5·3	R
19	...	1 50·95	...	27 5·1	R
20	...	1 50·95	...	27 6·1	R
23	...	1 50·99	...	27 5·3	R
25	...	1 50·97	...	27 7·7	R
26	...	1 50·97	...	27 4·8	R
28	...	1 50·99	...	27 7·7	R
Sep. 1	...	1 51·05	...	27 5·0	R
8	...	1 50·97	...	27 4·0	R
10	...	1 50·99	...	27 3·9	R
135		*Taylor* 8410.			
July 22	...	18 4 38·71	...	113 43 25·9	M
23	...	4 38·71	...	43 24·7	M
26	...	4 38·65	6	43 19·9	M
Aug. 4	...	4 38·63	...	43 23·4	R
5	...	4 38·56	...	43 24·0	R
136		*13 Sagittarii* μ^1			
July 19	...	18 6 49·47	...	111 5 16·3	M
137		*Stone* 9951.			
Aug. 7	6·0	18 8 27·43	...	153 55 3·2	R
8	6·0	8 27·48	5	55 3·5	R
12	6·0	8 27·07	...	55 5·2	R
13	6·0	8 27·04	...	55 3·7	R
15	6·0	8 27·27	...	55 4·8	R
138		*23 Ursæ Minoris* δ *—s.p.*			
Jan. 21	...	18 9 45·04	3	3 23 27·3	M
22	...	9 43·78	3	23 24·5	M
23	...	9 44·27	3	23 26·9	M
24	...	9 45·05	3	23 24·7	M
28	...	9 44·54	3	23 25·7	M
30	...	9 44·07	3	23 23·1	M
31	...	9 44·75	3	23 22·8	M
Feb. 2	...	9 44·26	3	23 24·8	R
5	...	9 44·13	3	23 23·1	R
139		*Taylor* 8440.			
July 22	...	18 12 31·91	...	151 32 38·5	M
Aug. 7	...	12 32·37	5	32 40·2	R
8	...	12 32·28	...	32 40·6	R
11	...	12 32·10	...	32 41·1	R
12	...	12 32·09	...	32 40·8	R
140		*24 Ursæ Minoris.*			
Aug. 18	...	18 13 42·84	3	3 0 33·2	R
19	...	13 44·17	3	0 34·2	R
20	...	13 43·48	3	0 34·6	R
Sep. 11	...	13 43·59	3	0 33·4	R
13	...	13 44·82	3	0 36·2	R
16	...	13 44·78	3	0 31·4	M
24	...	13 43·55	3	0 31·7	M
		24 Ursæ Minoris —s.p.			
Jan. 31	...	18 13 42·81	3	3 0 35·7	M
Feb. 7	...	13 42·80	3	0 37·0	R
141		*Taylor* 8454			
July 18	6·0	18 15 1·32	...	126 43 21·1	M
23	6·0	15 1·35	...	43 19·4	M
25	6·0	15 1·35	5	43 19·0	M
Aug. 2	6·0	15 1·27	...	43 19·4	R
4	6·0	15 1·39	...	43 18·4	R
142		*Stone* 10042.			
July 19	6·5	18 20 24·35	...	119 53 9·4	M
22	7·0	20 24·41	...	53 8·7	M
23	7·0	20 24·34	...	53 7·6	M
Aug. 4	6·7	20 24·57	...	53 8·2	R
7	6·7	20 24·47	...	53 7·1	R
143		*22 Sagittarii* λ			
Aug. 2	...	18 20 48·80	...	115 29 2·0	R
5	...	20 48·89	...	29 2·1	R

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Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
144		*Taylor* 8520.			
July 18	6·0	18 25 11·22	...	142 58 27·5	M
22	6·0	25 11·15	4	58 26·7	M
Aug. 7	6·0	25 11·52	...	58 26·9	R
8	6·0	25 11·49	...	58 28·5	R
145		*Stone* 10137.			
July 22	6·5	18 31 2·46	5	154 44 41·8	M
Aug. 12	6·0	31 2·43	...	44 45·5	R
13	6·0	31 2·37	...	44 45·6	R
16	6·0	31 2·43	...	44 45·5	R
18	6·0	31 2·35	...	44 45·0	R
146		3 *Lyræ α, Vega.*			
July 23	...	18 33 0·50	...	51 19 24·8	M
26	...	33 0·61	...	19 22·9	M
Aug. 4	...	33 0·39	...	19 21·8	R
5	...	33 0·34	...	19 24·2	R
7	...	33 0·50	...	19 24·4	R
8	...	33 0·46	...	19 23·9	R
147		*Stone* 10173.			
Aug. 15	6·0	18 34 36·91	...	151 12 21·9	R
19	6·0	34 37·00	...	12 25·1	R
23	6·0	34 37·20	5	12 25·1	R
28	6·0	34 37·27	...	12 25·0	R
Sep. 1	6·0	34 37·30	5	12 20·9	R
148		*Taylor* 8603.			
July 22	7·0	18 37 59·75	...	140 12 44·9	M
25	...	37 59·66	...	12 46·2	M
Aug. 2	5·0	37 59·59	...	12 45·2	R
4	5·0	37 59·64	...	12 43·9	R
8	5·0	37 59·80	...	12 44·8	R
149		η^1 *Coronæ Australis.*			
July 23	...	18 40 28·03	...	133 48 16·8	M
Aug. 12	...	40 28·18	...	48 16·1	R
14	...	40 28·22	...	48 15·5	R
15	...	40 28·05	...	48 14·9	R
16	...	40 28·22	...	48 16·2	R
150		*Anon.*			
Aug. 16	8·0	18 43 52·73	...	125 30 57·0	R
18	8·0	43 52·98	...	30 56·4	R
151		10 *Lyræ β, Var.* 1.			
July 22	...	18 45 47·76	...	56 46 17·6	M
Aug. 8	...	45 47·82	...	46 17·0	R
12	...	45 47·60	...	46 16·7	R
14	...	45 47·64	...	46 17·0	R
152		*Anon.*			
July 22	9·5	18 52 19·19	5	132 56 54·3	M
Aug. 18	9·5	52 19·08	...	56 52·9	R
19	9·5	52 19·02	...	56 50·5	R
28	9·5	52 19·18	...	56 53·3	R
153		*R. P. L.* 131.			
Aug. 13	...	18 52 43·66	3	3 26 20·0	R
Sep. 10	...	52 42·95	3	26 19·5	R
11	...	52 43·06	3	26 19·5	R
13	...	52 44·87	3	26 20·0	R
16	...	52 44·14	3	26 19·1	M
24	...	52 43·64	3	26 19·6	M
154		*Anon.*			
Aug. 2	8·9	18 53 58·75	...	128 6 51·9	R
4	8·9	53 58·69	3	6 50·5	R
12	8·0	53 59·21	3	6 49·8	R
155		*Stone* 10351.			
July 25	...	18 55 22·59	...	128 25 7·7	M
156		*Stone* 10391.			
July 22	...	19 0 37·17	...	132 36 15·2	M
Aug. 7	...	0 37·35	...	36 15·1	R

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Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
157		*Stone* 10399.			
Aug. 13	...	19 1 41·54	...	146 29 31·5	R
15	...	1 41·39	...	29 31·0	R
19	...	1 41·43	...	29 31·7	R
21	...	1 41·63	4	29 31·6	R
23	...	1 41·78	...	29 31·7	R
158		*Stone* 10404.			
July 19	...	19 1 47·31	...	132 4 27·2	M
25	...	1 47·15	...	4 28·5	M
Aug. 14	...	1 47·11	...	4 29·3	R
16	...	1 47·20	...	4 28·4	R
18	...	1 47·31	...	4 28·2	R
159		*Stone* 10428.			
Aug. 8	...	19 5 43·15	...	155 25 29·6	R
12	...	5 42·76	...	25 31·7	R
28	...	5 42·94	...	25 30·4	R
Sep. 1	...	5 43·19	4	25 31·7	R
8	...	5 42·69	...	25 29·8	R
160		*Anon.*			
July 22	9·5	19 10 17·85	...	130 46 28·3	M
Aug. 13	9·5	10 17·67	...	46 27·9	R
161		*Stone* 10465.			
July 19	...	19 11 58·45	4	125 37 52·3	M
25	...	11 58·64	...	37 52·6	M
162		25 *Aquilæ* ω			
July 26	...	19 12 22·31	...	78 36 45·5	M
163		*Stone* 10487.			
Aug. 2	7·0	19 14 18·07	...	119 49 16·5	R
164		49 *Sagittarii* χ^3			
July 22	...	19 18 28·27	...	114 11 19·0	M
25	...	18 28·28	...	11 18·1	M
Aug. 8	...	18 28·34	...	11 19·2	R
165		30 *Aquilæ* δ			
July 26	...	19 19 38·91	...	87 6 55·8	M
Aug. 5	...	19 38·95	...	6 55·2	R
166		*Anon.*			
Sep. 10	9·0	19 26 3·06	4	146 54 53·7	R
167		*Taylor* 8982.			
July 25	...	19 28 40·11	...	148 14 18·9	M
Aug. 12	...	28 40·04	...	14 17·1	R
13	...	28 40·09	...	14 17·4	R
168		*Stone* 10598.			
July 22	6·7	19 32 1·36	...	129 41 38·2	M
26	...	32 1·34	...	41 37·9	M
Aug. 4	6·7	32 1·58	...	41 39·2	R
169		*Anon.*			
Aug. 12	7·0	19 33 29·46	...	126 35 51·6	R
13	7·0	33 29·37	...	35 52·2	R
15	7·5	33 29·47	...	35 51·1	R
16	7·5	33 29·51	...	35 52·0	R
170		*Stone* 10624.			
Aug. 18	7·0	19 36 25·80	...	131 52 59·1	R
19	7·0	36 25·78	...	52 59·0	R
171		*Stone* 10643.			
Aug. 12	6·7	19 39 52·89	...	143 10 12·8	R
15	6·7	39 53·16	...	10 12·6	R
16	6·7	39 53·25	...	10 13·4	R
19	6·7	39 53·17	...	10 13·1	R
172		λ *Ursæ Minoris.*			
Oct. 11	...	19 39 58·57	3	1 2 48·4	M
13	...	39 58·56	2	2 48·4	M

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Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
		λ *Ursæ Minoris*—*s.p.*			
Feb. 9	...	19 39 57·07	3	1 2 49·2	R
13	...	39 57·18	3	2 48·5	R
16	...	39 57·19	3	2 48·8	R
173		**50 *Aquilæ γ***			
July 25	...	19 40 44·53	...	79 40 7·4	M
Aug. 2	...	40 44·58	...	40 5·5	R
4	...	40 44·62	...	40 5·6	R
7	...	40 44·68	...	40 6·8	R
174		**53 *Aquilæ α, Altair.***			
July 26	...	19 45 7·35	...	81 26 12·9	M
Aug. 8	...	45 7·51	...	26 13·7	R
16	...	45 7·38	...	26 12·7	R
175		**60 *Aquilæ β***			
Aug. 12	...	19 49 36·90	...	83 52 55·1	R
176		***Stone* 10739.**			
Aug. 4	6·7	19 52 22·35	...	133 21 31·2	R
177		***Anon.***			
Aug. 16	8·0	19 54 29·70	...	130 18 7·3	R
19	8·0	54 29·90	...	18 7·1	R
20	8·0	54 29·93	...	18 7·2	R
23	8·0	54 30·06	...	18 6·3	R
178		***Stone* 10797.**			
July 26	...	20 0 43·49	...	137 24 3·6	M
Aug. 4	...	0 43·42	...	24 3·4	R
179		***Stone* 10803.**			
Aug. 5	6·7	20 2 1·27	...	134 13 52·0	R
12	6·7	2 1·18	...	13 53·3	R
15	6·7	2 1·16	...	13 52·4	R
16	6·7	2 1·30	...	13 54·0	R
18	6·7	2 1·13	...	13 53·0	R
180		**65 *Aquilæ θ***			
Aug. 20	...	20 5 19·18	...	91 9 52·4	R
21	...	5 19·09	...	9 51·3	R
23	...	5 19·10	...	9 51·9	R
25	...	5 19·18	...	9 53·5	R
26	...	5 19·15	...	9 52·3	R
28	...	5 19·25	...	9 53·0	R
Sep. 1	...	5 19·11	...	9 50·9	R
8	...	5 19·13	...	9 53·1	R
10	...	5 19·10	...	9 52·0	R
11	...	5 19·16	...	9 51·5	R
13	...	5 19·12	...	9 50·3	R
16	...	5 19·18	...	9 53·3	M
24	...	5 19·17	...	9 55·4	M
25	...	5 19·22	...	9 55·4	M
26	...	5 19·16	...	9 54·4	M
Oct. 1	...	5 19·19	...	9 53·1	M
2	...	5 19·21	...	9 54·2	M
3	...	5 19·19	...	9 55·5	M
4	...	5 19·24	...	9 53·7	M
6	...	5 19·34	...	9 55·4	M
181		***Taylor* 9303.**			
Aug. 15	...	20 8 3·31	...	117 22 40·0	R
16	...	8 3·21	...	22 41·1	R
18	...	8 3·09	...	22 40·2	R
182		**6 *Capricorni α*²**			
Aug. 12	...	20 11 37·19	...	102 54 10·3	R
18	...	11 37·18	...	54 9·2	R
183		**24 *Cephei* (*Hev.*), *Var.* 2.**			
Oct. 3	...	20 12 39·27	3	1 13 17·0	M
184		***Taylor* 9343.**			
Aug. 5	6·7	20 13 15·40	...	140 21 21·6	R
185		***Anon.***			
Sep. 13	8·5	20 18 5·71	5	121 8 2·9	R

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Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
186		*Anon.*			
Aug. 16	8·5	20 21 33·47	5	133 19 21·9	R
187		*Taylor* 9464.			
Aug. 19	...	20 26 44·31	...	112 37 23·7	R
188		*R. P. L.* 143.			
Aug. 7	...	20 26 50·24	3	5 14 28·1	R
20	...	26 50·55	3	14 27·1	R
Sep. 10	...	26 50·09	3	14 26·0	R
189		2 *Delphini* ϵ			
Oct. 6	...	20 27 40·17	...	79 5 26·5	M
7	...	27 40·23	...	5 25·7	M
8	...	27 40·25	...	5 24·6	M
9	...	27 40·16	...	5 24·6	M
10	...	27 40·13	...	5 26·1	M
11	...	27 40·26	...	5 25·3	M
13	...	27 40·16	...	5 27·6	M
21	...	27 40·35	...	5 26·1	M
22	...	27 40·19	...	5 26·0	M
27	...	27 40·18	...	5 28·4	M
190		*Taylor* 9561.			
Aug. 12	...	20 37 18·15	...	126 14 39·1	R
191		50 *Cygni a, Deneb.*			
Sep. 13	...	20 37 28·50	...	45 7 59·9	R
16	...	37 28·54	...	7 57·6	M
24	...	37 28·39	...	7 58·9	M
25	...	37 28·46	...	7 58·9	M
26	...	37 28·49	...	7 58·1	M
192		*Taylor* 9573.			
Aug. 20	...	20 39 25·54	...	136 16 38·4	R
23	...	39 25·62	...	16 37·6	R
193		2 *Aquarii* ϵ			
Oct. 6	...	20 41 23·55	...	99 55 12·3	M
7	...	41 23·66	...	55 11·8	M
8	...	41 23·65	...	55 11·9	M
9	...	41 23·71	...	55 12·0	M
10	...	41 23·70	...	55 10·0	M
11	...	41 23·65	...	55 11·3	M
13	...	41 23·70	...	55 12·8	M
22	...	41 23·62	...	55 10·7	M
27	...	41 23·73	...	55 12·6	M
28	...	41 23·63	...	55 12·1	M
194		*Stone* 11091.			
Aug. 23	...	20 44 45·21	5	142 8 54·4	R
28	...	44 45·13	...	8 56·1	R
Sep. 1	...	44 45·06	...	8 55·8	R
8	...	44 45·05	4	8 55·9	R
195		*Stone* 11115.			
Aug. 25	...	20 47 8·89	4	118 21 48·0	R
26	...	47 8·94	...	21 44·6	R
196		32 *Vulpeculæ.*			
Aug. 28	...	20 49 36·81	...	62 23 1·1	R
197		*Lalande* 40458.			
Sep. 26	...	20 50 37·90	...	100 8 29·1	M
Oct. 1	...	50 37·84	...	8 30·8	M
2	...	50 37·84	...	8 31·0	M
4	...	50 37·85	...	8 30·2	M
6	...	50 37·84	...	8 29·2	M
198		76 *Draconis.*			
Oct. 8	...	20 50 54·94	...	7 53 59·1	M
9	...	50 54·09	...	53 59·2	M
10	...	50 55·68	...	53 58·5	M
11	...	50 55·07	...	53 59·5	M

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Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
199		*Stone* 11191.			
Aug. 28	...	20 58 16·69	..	138 59 11·8	R
200		23 *Capricorni* θ			
Aug. 21	...	20 59 25·56	...	107 41 38·7	R
201		*Anon.*			
Sep. 10	8·0	21 0 18·10	...	150 59 23·5	R
24	8·0	0 18·01	...	59 24·4	M
26	8·0	0 18·48	...	59 25·5	M
202		24 *Capricorni* A.			
Aug. 26	...	21 0 20·45	...	115 28 6·3	R
203		61 *Cygni*—1*st*.			
Sep. 1	...	21 1 41·81	...	51 49 11·4	R
18	...	1 41·86	...	49 12·2	R
204		61 *Cygni*—2*nd*.			
Sep. 8	...	21 1 43·25	...	51 49 22·0	R
Oct. 1	...	1 43·23	...	49 22·8	M
3	...	1 43·28	...	49 25·4	M
4	...	1 43·13	...	49 23·5	M
7	...	1 43·33	...	49 23·3	M
8	...	1 43·53	...	49 23·5	M
9	...	1 43·22	...	49 24·9	M
28	...	1 43·21	...	49 28·1	M
205		*Anon.*			
Oct. 10	8·5	21 4 28·16	...	100 40 52·3	M
11	8·5	4 28·29	...	40 50·7	M
21	...	4 28·03	...	40 52·4	M
22	8·5	4 28·07	...	40 53·0	M
27	8·5	4 28·32	...	40 53·3	M
206		64 *Cygni* ζ			
Sep. 1	...	21 7 59·89	...	60 14 51·9	R
207		5 *Cephei a*			
Sep. 13	...	21 15 46·69	...	27 54 19·2	R
24	...	15 48·57	...	54 22·7	M
25	...	15 48·26	...	54 19·8	M
26	...	15 48·27	...	54 20·5	M
Oct. 6	...	15 48·35	...	54 22·6	M
11	...	15 48·51	...	54 20·6	M
21	...	15 48·19	...	54 22·3	M
22	...	15 48·87	...	54 18·9	M
208		22 *Aquarii* β			
Sep. 13	...	21 25 27·08	...	96 4 50·0	R
24	...	25 27·15	...	4 51·9	M
209		*Anon.*			
Sep. 24	9·0	21 33 43·75	...	119 45 19·9	M
Oct. 3	9·0	33 43·98	...	45 19·1	M
4	9 0	33 43·83	...	45 20·7	M
6	...	33 43·85	...	45 17·9	M
8	9·0	33 43·67	...	45 19·2	M
210		ε *Indi.*			
Oct. 1	...	21 54 28·83	...	147 15 42·6	M
3	...	54 28·74	...	15 42·6	M
4	...	54 28·82	...	15 41·6	M
6	...	54 28·86	...	15 43·2	M
7	...	54 28·81	...	15 41·1	M
8	...	54 28·98	...	15 40·5	M
9	...	54 28·93	...	15 40·3	M
10	...	54 28·74	...	15 41·2	M
11	...	54 29·03	...	15 41·5	M
13	...	54 29·04	...	15 43·0	M
211		34 *Aquarii a*			
Sep. 24	...	21 59 49·58	...	90 52 59·6	M
212		48 *Aquarii* γ			
Oct. 11	...	22 15 39·77	...	91 58 14·4	M
13	...	15 39·94	...	58 19·8	M
21	...	15 39·76	...	58 19·0	M

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Separate Results of Madras Meridian Circle Observations in 1884.

Number and Date.	Magnitude.	Mean Right Ascension 1884. h. m. s.	No. of Wires.	Mean Polar Distance 1884. ° ′ ″	Observer.
Oct. 22	...	22 15 39·91	...	19 58 20·6	M
27	...	15 39·81	...	58 19·0	M
28	...	15 39·91	...	58 20·7	M
Nov. 12	...	15 39·82	...	58 16·2	R
14	...	15 39·88	...	58 17·2	R
15	...	15 39·94	...	58 18·2	R
17	...	15 39·98	..	58 17·0	R
213	*R. P. L.* 150.				
Oct. 1	...	22 22 23·00	3	4 28 35·3	M
214	*R. P. L.* 151.				
Oct. 2	...	22 22 48·59	3	4 21 43·5	M
3	...	22 49·03	3	21 42·2	M
215	*R. P. L.* 153.				
Oct. 4	...	22 26 44·31	3	2 30 25·0	M
	R. P. L. 153—*s.p.*				
Apl. 16	...	22 26 40·85	3	2 30 30·4	R
216	42 *Pegasi* ζ				
Oct. 1	...	22 35 40·42	...	79 46 27·0	M
2	...	35 40·63	...	46 26·7	M
217	73 *Aquarii* λ				
Oct. 1	...	22 46 33·71	...	98 11 48·8	M
2	...	46 33·58	...	11 48·7	M
3	...	46 33·68	...	11 48·6	M
4	...	46 33·67	...	11 49·0	M
6	...	46 33·71	...	11 48·4	M
7	...	46 33·68	...	11 50·3	M
8	...	46 33·76	...	11 48·5	M
9	...	46 33·65	...	11 49·5	M
10	...	46 33·70	...	11 50·1	M
11	...	46 33·73	...	11 49·5	M
22	...	46 33·59	...	11 47·7	M
27	..	46 33·72	...	11 49·3	M
28	...	46 33·64	...	11 50·8	M
Nov. 12	...	46 33·65	...	11 46·7	R
218	24 *Piscis Australis* α, *Fomalhaut.*				
Nov. 12	...	22 51 14·28	...	120 14 11·8	M
14	...	51 14·28	...	14 12·7	M
219	6 *Piscium* γ				
Oct. 8	...	23 11 9·07	...	87 21 4·7	M
9	...	11 9·11	...	21 6·7	M
220	8 *Piscium* κ				
Oct. 6	...	23 20 50·09	...	89 22 48·9	M
221	17 *Piscium* ι				
Oct. 8	...	23 33 58·95	...	85 0 10·3	M
222	28 *Piscium* ω				
Oct. 10	...	23 53 21·30	...	83 46 44·9	M

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MEAN POSITIONS OF STARS

OBSERVED WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1884

REDUCED TO JANUARY 1 OF THAT YEAR

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Mean Positions of Stars for 1884, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
1	8 Ceti ι	3·6	...	0	13	31·01	99	28	1·8	13	0·85
2	12 Ceti	6·2	...	0	24	7·15	94	35	55·0	2	0·00
3	16 Ceti β	2·1	...	0	37	45·99	108	37	25·8	2	0·00
4	58 Piscium	5·7	...	0	40	58·25	78	39	32·8	1	0·87
5	63 Piscium δ	4·6	...	0	42	39·77	83	2	47·6	3	0·01
6	R. P. L. 10	6·6	...	0	51	41·82	1	35	54·6	16	0·83
7	2 Ursæ Minoris	4·5	...	0	53	5·22	4	21	55·9	1	0·00
8	R. P. L. 14	6·2	...	0	56	46·76	3	28	23·5	1	0·29
9	43 Androm. β (*Mirach*) ...	2·2	...	1	3	14·28	54	59	40·9	11	0·76
10	R. P. L. 18	7·9	...	1	13	54·46	2	2	33·9	2	0·88
11	1 Ursæ Minoris α (*Polaris*)	2·2	...	1	16	13·01	1	18	35·8	6	0·31
12	99 Piscium η	3·7	...	1	25	16·45	75	15	8·9	1	0·00
13	Lalande 2806	8·5	...	1	26	36·22	77	26	6·9	5	0·98
14	110 Piscium ε	4·4	...	1	39	16·10	81	25	35·1	10	0·92
15	8 Arietis ι...	5·2	...	1	51	0·70	72	44	57·4	2	0·02
16	13 Arietis α	2·0	...	2	0	38·02	67	5	12·5	2	0·00
17	67 Ceti	5·5	...	2	11	11·85	96	57	26·6	4	0·01
18	R. P. L. 26	8·0	...	2	27	44·64	3	27	32·5	1	0·00
19	43 Arietis σ	5·5	...	2	45	5·29	75	23	46·4	13	0·72
20	Stone 1223	7·0	...	2	52	29·77	154	28	30·3	2	0·01
21	92 Ceti α (*Menkar*) ...	2·7	...	2	56	12·98	86	21	59·5	2	0·02
22	57 Arietis δ	4·5	...	3	4	59·74	70	42	46·7	8	0·26
23	R. P. L. 33	5·8	...	3	5	1·34	5	30	11·9	1	0·47
24	1 Tauri o, Var. 5	Var.	...	3	18	34·27	81	22	48·9	6	0·04
25	R. P. L. 34...	5·9	...	3	28	39·47	3	43	18·3	3	0·48
26	25 Tauri η (*Alcyone*) ...	3·0	...	3	40	35·33	66	15	18·9	2	0·01
27	34 Eridani γ^1	3·0	...	3	52	37·02	103	50	23·1	6	0·03
28	R. P. L. 35	6·7	...	4	0	30·80	4	45	8·0	4	0·04
29	74 Tauri ε...	3·7	...	4	21	50·50	71	4	40·9	3	0·02
30	87 Tauri α (*Aldebaran*) ...	1·0	...	4	29	15·78	73	43	29·7	3	0·03
31	19 Orionis β (*Rigel*) ...	0·3	...	5	8	57·81	98	20	13·8	1	0·02
32	112 Tauri β	1·9	...	5	18	57·45	61	29	34·1	1	0·02
33	R. P. L. 40	6·0	...	5	24	55·82	4	51	56·5	3	0·05
34	34 Orionis δ, Var. 1 ...	Var.	...	5	26	4·86	90	23	7·7	2	0·07
35	R. P. L. 41	7·5	...	5	29	32·98	4	44	55·9	1	0·06

6.—Groombridge 144. 8.—Groombridge 195. 10.—Carrington 183
18.—Carrington 352. 23.—Groombridge 595. 25.—Groombridge 642.
28.—Groombridge 750. 33.—Groombridge 944.

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
1	8 Ceti ι	+ 3·0593	− 0·0023	− 0·003	− 20·019	+ 0·034	+ 0·03	14
2	12 Ceti	+ 3·0611	+ 0·0008	− 0·000	− 19·943	+ 0·055	+ 0·01	38
3	16 Ceti β	+ 2·9985	− 0·0053	+ 0·015	− 19·783	+ 0·080	− 0·03	70
4	58 Piscium	+ 3·1201	+ 0·0101	+ 0·002	− 19·734	+ 0·087	+ 0·01	76
5	63 Piscium δ	+ 3·1025	+ 0·0079	+ 0·004	− 19·708	+ 0·091	+ 0·04	85
6	R. P. L. 10	+ 13·7867	+ 8·3218	+ 0·153	− 19·546	+ 0·458	+ 0·03	65
7	2 Ursæ Minoris ...	+ 7·0926	+ 1·3804	+ 0·068	− 19·518	+ 0·245	+ 0·01	92
8	R. P. L. 14	+ 8·4754	+ 2·1579	+ 0·054	− 19·440	+ 0·311	+ 0·02	95
9	43 Andromedæ β ...	+ 3·3275	+ 0·0286	+ 0·014	− 19·295	+ 0·139	+ 0·08	140
10	R. P. L. 18	+ 14·9492	+ 6·9011	...	− 19·020	+ 0·697	...	...
11	1 Ursæ Minoris α ...	+ 22·1581	+ 16·5716	+ 0·108	− 18·955	+ 1·063	+ 0·00	102
12	99 Piscium η	+ 3·2003	+ 0·0141	− 0·000	− 18·681	+ 0·177	+ 0·00	203
13	Lalande 2806 ...	+ 3·1822	+ 0·0129	...	− 18·639	+ 0·178	...	...
14	110 Piscium ο ...	+ 3·1570	+ 0·0111	+ 0·003	− 18·202	+ 0·200	− 0·06	232
15	8 Arietis ι	+ 3·2656	+ 0·0163	+ 0·001	− 17·747	+ 0·228	+ 0·02	262
16	13 Arietis α	+ 3·3563	+ 0·0203	+ 0·013	− 17·339	+ 0·252	+ 0·13	287
17	67 Ceti	+ 2·9840	+ 0·0049	+ 0·004	− 16·856	+ 0·242	+ 0·11	321
18	R. P. L. 26	+ 16·3633	+ 3·8148	...	− 16·029	+ 1·441	...	...
19	43 Arietis σ	+ 3·3022	+ 0·0150	− 0·000	− 15·072	+ 0·323	+ 0·04	400
20	Stone 1223	+ 1·1585	+ 0·0206	...	− 14·637	+ 0·121	..	...
21	92 Ceti α	+ 3·1313	+ 0·0098	− 0·003	− 14·415	+ 0·323	+ 0·07	428
22	57 Arietis δ	+ 3·4103	+ 0·0171	+ 0·010	− 13·867	+ 0·364	− 0·01	446
23	R. P. L. 33	+ 13·0968	+ 1·6177	+ 0·044	− 13·866	+ 1·386	+ 0·12	402
24	1 Tauri ο	+ 3·2268	+ 0·0115	− 0·005	− 12·986	+ 0·364	+ 0·07	477
25	R. P. L. 34	+ 19·3046	+ 3·2595	+ 0·136	− 12·301	+ 2·228	+ 0·06	Gr.
26	25 Tauri η	+ 3·5550	+ 0·0177	− 0·000	− 11·460	+ 0·430	+ 0·04	521
27	34 Eridani γ¹ ...	+ 2·7926	+ 0·0047	+ 0·003	− 10·581	+ 0·351	+ 0·11	546
28	R. P. L. 35	+ 17·0176	+ 1·8051	+ 0·002	− 9·988	+ 2·156	− 0·02	750
29	74 Tauri ε	+ 3·4893	+ 0·0120	+ 0·007	− 8·329	+ 0·446	+ 0·03	609
30	87 Tauri α	+ 3·4324	+ 0·0105	+ 0·004	− 7·734	+ 0·464	+ 0·18	630
31	19 Orionis β	+ 2·8813	+ 0·0040	− 0·001	− 4·429	+ 0·412	− 0·01	736
32	112 Tauri β	+ 3·7869	+ 0·0082	+ 0·001	− 3·572	+ 0·545	+ 0·18	756
33	R. P. L. 40	+ 18·5935	+ 0·5911	...	− 3·057	+ 2·681	...	...
34	34 Orionis δ	+ 3·0634	+ 0·0038	− 0·001	− 2·957	+ 0·443	+ 0·01	787
35	R. P. L. 41	+ 19·0231	+ 0·5390	...	− 2·657	+ 2·751	...	...

25.—Proper motions from *Greenwich Catalogue* 1880.

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Mean Positions of Stars for 1884, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
36	46 Orionis ε	1·8	...	5	30	19·76	91	16	38·9	1	0·06
37	58 Orionis α, Var. 2 ...	var.	...	5	48	53·47	82	36	57·2	9	0·07
38	R. P. L. 43	6·6	...	6	0	55·51	3	14	17·6	3	0·35
39	13 Geminorum μ	3·2	...	6	15	56·51	67	25	42·8	1	0·08
40	... ...	8·0	1	6	36	52·07	130	22	0·1	1	0·06
41	51 Cephei (*Hev.*)... ...	5·3	...	6	45	46·70	2	46	29·9	8	0·34
42	... ...	10·0	1	6	52	58·09	152	55	52·5	1	0·08
43	21 Canis Majoris ε ...	1·5	...	6	54	4·01	118	48	53·4	1	0·07
44	23 Canis Majoris γ ...	4·1	...	6	58	30·73	105	27	44·5	1	0·06
45	... ...	9·0	1	7	1	47·71	60	51	51·2	1	0·06
46	10 Canis Min. α (*Procyon*)	0·5	...	7	33	13·74	84	28	42·5	1	0·08
47	R. P. L. 45	7·2	...	7	39	54·30	1	1	33·0	8	0·75
48	ξ Argûs	3·4	...	7	44	24·85	114	34	8·6	10	0·12
49	R. P. L. 48	7·4	...	7	47	5·77	3	58	15·7	4	0·72
50	R. P. L. 49	6·7	...	7	49	0·57	5	36	39·6	5	0·47
51	15 Argûs ρ	2·9	...	8	2	36·13	113	58	13·5	9	0·11
52	R. P. L. 53	7·7	...	8	20	55·17	4	32	26·1	2	0·71
53	33 Cancri η	5·5	...	8	26	0·09	69	9	55·4	2	0·10
54	R. P. L. 55	7·5	...	8	31	45·28	5	41	3·7	2	0·75
55	11 Hydræ ε	3·6	...	8	40	37·96	83	9	21·8	2	0·10
56	R. P. L. 60	7·0	...	8	50	57·55	5	21	22·5	5	0·47
57	65 Cancri α	4·3	...	8	52	8·54	77	41	38·1	1	0·11
58	... ...	9·0	1	8	54	40·51	132	59	56·3	1	0·10
59	76 Cancri κ	5·0	...	9	1	27·81	78	51	57·0	1	0·11
60	83 Cancri	6·6	...	9	12	30·47	71	48	11·0	2	0·12
61	R. P. L. 62	8·1	...	9	21	48·66	2	21	45·3	4	0·76
62	30 Hydræ α, Var. 2 ...	var.	...	9	21	53·25	98	9	22·4	2	0·13
63	2 Leonis ω	5·6	...	9	22	14·70	80	26	16·3	1	0·11
64	Lacaille 3980	8·8	...	9	35	5·72	148	39	5·2	1	0·10
65	R. P. L. 69	7·9	...	9	39	9·63	2	52	12·1	2	0·75
66	17 Leonis ε	3·1	...	9	39	16·14	65	41	32·3	2	0·15
67	R. P. L. 70	5·0	...	9	49	50·03	5	31	24·6	5	0·24
68	32 Leonis α (*Regulus*) ...	1·4	...	10	2	11·61	77	27	55·7	3	0·20
69	R. P. L. 72	6·0	...	10	12	36·74	5	9	36·0	6	0·44
70	41 Leonis γ^1	2·5	...	10	13	34·55	69	34	19·4	3	0·25

38.—Groombridge 1004.
45.—Comparison star for Isis in 1866.
47.—Groombridge 1119.
49.—Groombridge 1359.
56.—Carrington 1286.
65.—Carrington 1418.
67.—Carrington 1451.
69.—Groombridge 1620.

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
36	46 Orionis ϵ	+ 3·0428	+ 0·0035	− 0·002	− 2·589	+ 0·441	− 0·01	809
37	58 Orionis α	+ 3·2454	+ 0·0027	+ 0·001	− 0·971	+ 0·473	− 0·02	860
38	R. P. L. 43	+ 26·7013	− 0·0432	...	+ 0·081	+ 3·894	...	...
39	13 Geminorum μ ...	+ 3·6268	− 0·0003	+ 0·004	+ 1·393	+ 0·527	+ 0·10	929
40	... ...	+ 1·9505	+ 0·0014	...	+ 3·213	+ 0·280	...	...
41	51 Cephei (*Hev.*) ...	+ 30·1062	− 2·2868	− 0·040	+ 3·979	+ 4·301	+ 0·05	Gr.
42	.. ..	+ 0·5261	− 0·0086	...	+ 4·594	+ 0·073	...	...
43	21 Canis Majoris ϵ ...	+ 2·3573	+ 0·0013	− 0·001	+ 4·687	+ 0·332	− 0·02	1023
44	23 Canis Majoris γ ...	+ 2·7145	+ 0·0005	− 0·002	+ 5·064	+ 0·381	+ 0·00	1028
45	... ...	+ 3·7907	− 0·0081	...	+ 5·342	+ 0·532	...	...
46	10 Canis Minoris α ...	+ 3·1911	− 0·0041	− 0·047	+ 7·935	+ 0·425	+ 1·03	1106
47	R. P. L. 45	+ 70·7557	− 31·7803	...	+ 8·468	+ 9·350	...	...
48	ξ Argûs	+ 2·5235	+ 0·0008	− 0·001	+ 8·823	+ 0·327	− 0·02	1132
49	R. P. L. 48	+ 20·2656	− 2·3745	...	+ 9·034	+ 2·635	...	...
50	R. P. L. 49	+ 15·1693	− 1·2443	...	+ 9·183	+ 1·963	...	...
51	15 Argûs ρ	+ 2·5610	+ 0·0009	− 0·008	+ 10·228	+ 0·318	− 0·06	1170
52	R. P. L. 53	+ 16·8237	− 2·1694	...	+ 11·568	+ 1·999	...	...
53	33 Cancri η	+ 3·4814	− 0·0129	− 0·004	+ 11·928	+ 0·404	+ 0·05	1207
54	R. P. L. 55	+ 13·6624	− 1·4650	...	+ 12·329	+ 1·566	...	...
55	11 Hydræ ϵ	+ 3·1950	− 0·0071	− 0·014	+ 12·933	+ 0·351	+ 0·02	1243
56	R. P. L. 60	+ 13·5446	− 1·6998	...	+ 13·610	+ 1·445	...	...
57	65 Cancri α	+ 3·2855	− 0·0098	+ 0·001	+ 13·685	+ 0·345	+ 0·02	1269
58	... ...	+ 2·1706	+ 0·0037	...	+ 13·847	+ 0·224	...	...
59	76 Cancri κ	+ 3·2573	− 0·0093	− 0·003	+ 14·270	+ 0·329	− 0·01	1287
60	83 Cancri	+ 3·3657	− 0·0134	− 0·009	+ 14·932	+ 0·323	+ 0·14	1309
61	R. P. L. 62	+ 23·7048	− 8·0701	..	+ 15·463	+ 2·193	..	...
62	30 Hydræ α	+ 2·9504	− 0·0013	− 0·002	+ 15·468	+ 0·268	− 0·05	1330
63	2 Leonis ω	+ 3·2155	− 0·0088	+ 0·002	+ 15·487	+ 0·292	− 0·02	1328
64	Lacaille 3980 ...	+ 1·7754	+ 0·0024	...	+ 16·177	+ 0·147	...	...
65	R. P. L. 69	+ 18·4483	− 5·3716	...	+ 16·385	+ 1·544	...	...
66	17 Leonis ϵ	+ 3·4203	− 0·0180	− 0·004	+ 16·390	+ 0·282	+ 0·01	1368
67	R. P. L. 70	+ 10·5091	− 1·5283	...	+ 16·905	+ 0·817	...	...
68	32 Leonis α	+ 3·2185	− 0·0102	− 0·018	+ 17·462	+ 0·225	− 0·02	1406
69	R. P L. 72	+ 9·7581	− 1·5862	− 0·096	+ 17·892	+ 0·635	− 0·04	1399
70	41 Leonis γ^1 ...	+ 3·2954	− 0·0148	+ 0·021	+ 17·930	+ 0·208	+ 0·14	1432

41—Proper motions from *Greenwich Catalogue* 1880.

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Mean Positions of Stars for 1884, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
71	W. B. E. X. 336 ...	9·0	5	10	21	7·71	92	27	41·2	5	0·30
72	... ...	7·8	5	10	21	42·22	92	55	39·0	5	0·31
73	47 Leonis ρ	4·0	...	10	26	42·13	80	5	47·6	1	0·29
74	Yarnall 4465	5·5	...	10	37	6·39	66	12	16·6	5	0·33
75	... ...	9·0	4	10	39	7·16	65	48	40·9	4	0·30
76	... ...	9·0	5	10	41	36·86	66	3	0·3	5	0·31
77	53 Leonis l	5·3	...	10	43	9·55	78	50	26·9	1	0·29
78	63 Leonis χ	4·7	...	10	59	1·98	82	2	12·5	2	0·29
79	R. P. L. 79	7·7	...	11	0	32·98	1	43	48·0	7	0·76
80	68 Leonis δ	2·8	...	11	7	56·32	68	50	27·7	2	0·29
81	84 Leonis τ	5·1	...	11	21	58·27	86	30	17·2	10	0·32
82	94 Leonis β	2·2	...	11	43	8·59	74	46	45·7	1	0·29
83	R. P. L. 87	8·0	...	11	53	35·40	2	21	33·1	5	0·87
84	8 Virginis π	4·4	...	11	54	55·71	82	44	18·1	10	0·32
85	... ...	9·0	5	11	58	39·63	86	44	2·1	5	0·32
86	R. P. L. 89	6·3	...	11	58	51·51	3	46	11·0	6	0·49
87	2 Corvi ϵ	3·1	...	12	4	9·43	111	58	25·6	1	0·29
88	R. P. L. 92	6·7	...	12	13	27·51	2	55	9·1	3	0·67
89	15 Virginis η	4·0	...	12	13	58·21	90	1	19·8	3	0·30
90	R. P. L. 93	6·7	...	12	14	21·69	1	39	26·4	2	0·59
91	Lalande 23300	8·5	...	12	21	49·85	91	44	15·9	5	0·29
92	R. P. L. 97	7·2	...	12	37	34·07	5	43	8·3	1	0·82
93	R. P. L. 99	5·6	...	12	48	16·71	5	57	22·5	2	0·29
94	47 Virginis ϵ	3·0	...	12	56	24·18	78	25	0·0	10	0·32
95	R. P. L. 100	8·0	...	13	0	23·40	3	29	29·9	5	0·94
96	R. P. L. 101	7·5	...	13	6	57·29	1	43	41·5	4	0·49
97	67 Virginis α (*Spica*) ...	1·2	...	13	19	4·82	100	33	18·2	1	0·30
98	R. P. L. 103	7·0	...	13	19	20·11	4	38	20·8	9	0·58
99	8 Bootis η	2·9	...	13	49	9·81	71	1	13·0	1	0·30
100	93 Virginis τ	4·3	...	13	55	44·70	87	53	35·0	2	0·47
101	R. P. L. 108	7·8	...	14	1	21·69	3	41	10·2	2	0·48
102	16 Bootis α (*Arcturus*) ...	0·0	...	14	10	22·21	70	12	45·6	3	0·47
103	25 Bootis ρ	3·6	...	14	26	49·78	53	7	5·7	1	0·47
104	36 Bootis ϵ^2 (*Mirac*) ...	2·6	...	14	39	55·17	62	26	9·4	4	0·47
105	9 Libræ a^2	3·0	...	14	44	27·81	105	33	27·9	3	0·48

71—72—74—75—76.—Comparison stars for Sylvia in 1884.
79.—Carrington 1639.
85.—Comparison star for Camilla in 1884.
86.—Groombridge 1850.
88.—Groombridge 1871.
90.—Groombridge 1884.
91.—Comparison star for Hestia in 1884.
93.—Groombridge 1940.
96.—Groombridge 2006.
98.—Groombridge 2007.
101.—Groombridge 2099.

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
71	W. B. E. X. 336 ..	+ 3·0483	− 0·0020	...	+ 18·216	+ 0·179	...	...
72	... ...	+ 3·0440	− 0·0016	...	+ 18·244	+ 0·177	...	...
73	47 Leonis ρ	+ 3·1648	− 0·0080	− 0·001	+ 18·415	+ 0·176	− 0·01	1467
74	Yarnall 4465... ..	+ 3·2810	− 0·0166	...	+ 18·757	+ 0·162	...	...
75	... ...	+ 3·2799	− 0·0168	...	+ 18·817	+ 0·158	...	...
76	... ...	+ 3·2715	− 0·0164	...	+ 18·893	+ 0·153	...	...
77	53 Leonis l	+ 3·1592	− 0·0080	− 0·002	+ 18·937	+ 0·145	+ 0·02	1500
78	63 Leonis χ	+ 3·1215	− 0·0056	− 0·026	+ 19·348	+ 0·113	+ 0·02	1535
79	R. P. L. 79	+ 14·4261	− 8·0284	...	+ 19·383	+ 0·532	...	...
80	68 Leonis δ	+ 3·1889	− 0·0132	+ 0·010	+ 19·539	+ 0·098	+ 0·12	1546
81	84 Leonis τ	+ 3·0859	− 0·0020	− 0·001	+ 19·778	+ 0·066	+ 0·01	1570
82	94 Leonis β	+ 3·0991	− 0·0074	− 0.036	+ 19·999	+ 0·025	+ 0·10	1605
83	R. P. L. 87	+ 3·9799	− 1·1518	..	+ 20·046	+ 0·007	...	...
84	8 Virginis π	+ 3·0761	− 0·0023	− 0·003	+ 20·048	+ 0·002	+ 0·02	1618
85	... ...	+ 3·0723	+ 0·0001	...	+ 20·054	− 0·005	...	....
86	R. P. L. 89	+ 3·1735	− 0·4815	...	+ 20·053	− 0·007	...	...
87	2 Corvi ε	+ 3·0822	+ 0·0142	− 0·006	+ 20·051	− 0·016	− 0·02	1626
88	R. P. L. 92	+ 1·5341	+ 0·0043	+ 0·285	+ 20·019	− 0·022	+ 0·02	1656
89	15 Virginis η ...	+ 3·0724	+ 0·0027	− 0·006	+ 20·016	− 0·035	+ 0·02	1647
90	R. P. L. 93	+ 0·1787	+ 0·9144	− 0·090	+ 20·014	− 0·011	− 0·08	1672
91	Lalande 23360 ...	+ 3·0763	+ 0·0040	...	+ 19·962	− 0·051	...	...
92	R. P. L. 97	+ 0·8939	+ 0·1280	...	+ 19·785	− 0·030	...	...
93	R. P. L. 99	+ 0·3931	+ 0·2141	− 0·020	+ 19·610	− 0·020	− 0·02	1731
94	47 Virginis ε... ...	+ 3·0056	− 0·0007	− 0·019	+ 19·450	− 0·114	− 0·03	1735
95	R. P. L. 100	− 2·6354	+ 1·2911	...	+ 19·361	+ 0·092	..	...
96	R. P. L. 101	− 9·6885	+ 6·9738	...	+ 19·204	+ 0·399	...	...
97	67 Virginis α... ...	+ 3·1566	+ 0·0116	− 0·004	+ 18·871	− 0·163	+ 0·02	1774
98	R. P. L. 103	− 2·5175	+ 0·9222	...	+ 18·864	+ 0·117	...	...
99	8 Bootis η	+ 2·8615	− 0·0006	− 0·005	+ 17·821	− 0·199	+ 0·34	1821
100	93 Virginis τ ...	+ 3·0486	+ 0·0064	− 0·001	+ 17·550	− 0·222	+ 0·03	1829
101	R. P. L. 108	− 7·4102	+ 2·3425	...	+ 17·307	+ 0·539	...	...
102	16 Bootis α	+ 2·8131	+ 0·0014	− 0·080	+ 16·895	− 0·227	+ 1·98	1847
103	25 Bootis ρ	+ 2·5945	− 0·0015	− 0·009	+ 16·077	− 0·233	− 0·13	1869
104	36 Bootis ϵ^2	+ 2·6240	− 0·0001	− 0·004	+ 15·366	− 0·252	− 0·00	1890
105	9 Librae α^2	+ 3·3171	+ 0·0154	− 0·009	+ 15·108	− 0·324	+ 0·07	1894

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Mean Positions of Stars for 1884, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of year.
				h.	*m.*	*s.*	°	′	″		
106	T Tranguli Australis, Var.	var.	...	14	58	57·26	158	16	20·9	2	0·48
107	R. P. L. 111	7·0	...	15	3	27·20	5	36	0·7	7	0·37
108	27 Libræ β	2·7	...	15	10	45·85	98	57	14·4	3	0·48
109	Redhill 2293	8·0	...	15	11	46·31	4	25	39·8	1	0·91
110	R. P. L. 114	6·9	...	15	15	0·11	2	19	21·5	2	0·54
111	5 Cor. Bor. α (*Alpheta*) ...	2·4	...	15	29	46·52	62	53	38·7	7	0·54
112	24 Serpentis α	2·7	..	15	38	33·30	83	12	31·6	10	0·54
113	R. P. L. 115	7·0	...	15	45	12·50	4	47	32·4	21	0·47
114	16 Ursæ Minoris ζ ...	4·5	...	15	48	13·52	11	50	55·6	1	0·47
115	8 Scorpii β^1	3·0	...	15	58	41·60	109	29	11·6	5	0·50
116	R. P. L. 116	7·0	...	16	0	35·25	4	22	2·6	2	0·25
117	1 Ophiuchi δ	2·8	...	16	8	15·93	93	23	39·6	2	0·47
118	21 Scorpii α (*Antares*) ...	1·1	...	16	22	17·75	116	10	24·6	2	0·47
119	40 Herculis ζ	3·1	...	16	36	54·71	58	11	11·4	3	0·50
120	22 Ursæ Minoris ε ...	4·5	...	16	57	53·10	7	46	30·4	1	0·02
121	R. P. L. 118	8·0	...	17	1	48·75	5	8	39·2	1	0·53
122	G. Z. C. XVII. 421 ...	9·4	...	17	7	0·73	130	55	11·6	1	0·64
123	64 Herculis α^1, Var. 1 ...	var.	...	17	9	21·46	75	28	33·9	3	0·54
124	... ...	9·0	5	17	14	42·42	126	23	49·2	5	0·64
125	Taylor 8070	6·6	...	17	21	5·23	126	40	46·3	5	0·64
126	35 Scorpii λ	1·7	...	17	25	44·05	127	1	3·8	4	0·65
127	Stone 9578	7·8	...	17	28	15·00	146	44	40·4	2	0·64
128	55 Ophiuchi α	2·2	...	17	29	32·99	77	21	17·6	1	0·47
129	R. P. L. 120	7·3	...	17	31	35·51	5	17	25·9	2	0·51
130	... ...	7·5	5	17	34	30·34	125	44	22·4	5	0·69
131	60 Ophiuchi β	2·9	...	17	37	44·48	85	22	58·7	10	0·65
132	86 Herculis μ	3·5	...	17	41	55·08	62	12	38·2	4	0·56
133	... ...	8·3	2	17	42	56·44	143	28	19·8	2	0·58
134	72 Ophiuchi	3·8	...	18	1	50·98	80	27	5·5	10	0·65
135	Taylor 8410	5·7	...	18	4	38·65	113	43	23·6	5	0·57
136	13 Sagittarii μ^1	4·1	...	18	6	49·47	111	5	16·3	1	0·55
137	Stone 9951	6·4	...	18	8	27·26	153	55	4·1	5	0·61
138	23 Ursæ Minoris δ ...	4·3	...	18	9	44·43	3	23	24·8	9	0·07
139	Taylor 8440	4·4	..	18	12	32·15	151	32	40·2	5	0·59
140	24 Ursæ Minoris	5·9	...	18	13	43·65	3	0	33·8	9	0·54

107.—Groombridge 2213. 110.—Groombridge 2283. 113.—Carrington 2380.
116.—Carrington 2423. 124—125—130.—Comparison stars for comet in 1884.

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion	
		s	s	s	"	"	"	
106	T Trianguli Austr. ...	+ 5·4337	+ 0·1423	...	+ 14·245	− 0·561	...	...
107	R. P. L. 111	− 6·7126	+ 1·1515	...	+ 13·965	+ 0·696	...	...
108	27 Libræ β	+ 3·2281	+ 0·0117	− 0·008	+ 13·498	− 0·353	+ 0·02	1934
109	Redhill 2293	− 9·7464	+ 1·9109	...	+ 13·433	+ 1·049	...	...
110	R. P. L. 114	− 21·7082	+ 7·3670	...	+ 13·222	+ 2·374	...	...
111	5 Coronæ Borealis α...	+ 2·5299	+ 0·0023	+ 0·009	+ 12·223	− 0·297	+ 0·09	1973
112	24 Serpentis α ...	+ 2·9426	+ 0·0062	+ 0·008	+ 11·606	− 0·354	− 0·06	1990
113	R. P. L. 115	− 10·1949	+ 1·5232	...	+ 11·126	+ 0·1·9	...	...
114	16 Ursæ Minoris ζ ...	− 2·2748	+ 0·2031	+ 0·003	+ 10·906	+ 0·276	+ 0·00	2041
115	8 Scorpii β¹	+ 3·4807	+ 0·0142	− 0·003	+ 10·125	− 0·441	+ 0·03	2034
116	R. P. L. 116	− 12·1097	+ 1·7435	...	+ 9·982	+ 1·528	...	...
117	1 Ophiuchi δ.. ...	+ 3·1424	+ 0·0081	− 0·005	+ 9·394	− 0·408	+ 0 14	2065
118	21 Scorpii α	+ 3·6707	+ 0·0150	− 0·002	+ 8·293	− 0·491	+ 0·03	2091
119	40 Herculis ζ ...	+ 2·2970	+ 0·0033	− 0·036	+ 7·112	− 0·316	− 0·41	2127
120	22 Ursæ Minoris ε ...	− 6·3616	+ 0·3105	+ 0·009	+ 5·369	+ 0·892	+ 0·00	2201
121	R. P. L. 118	− 11·3019	+ 0·7079	...	+ 5·037	+ 1·593	...	...
122	G. Z. C. XVII. 421 ...	+ 4·2006	+ 0·0149	...	+ 4·586	− 0·597	...	...
123	64 Herculis α¹ ...	+ 2·7345	+ 0·0085	− 0·002	+ 4·395	− 0·391	− 0·03	2183
124	... ...	+ 4·0387	+ 0·0112	...	+ 3·938	− 0·579	...	...
125	Taylor 8070	+ 4·0539	+ 0·0100	...	+ 3·389	− 0·583	...	...
126	35 Scorpii λ	+ 4·0693	+ 0·0090	− 0·001	+ 2·976	− 0·588	+ 0·05	2210
127	Stone 9578	+ 5·0915	+ 0·0176	...	+ 2·770	− 0·736	...	...
128	55 Ophiuchi α ...	+ 2·7751	+ 0·0030	+ 0·007	+ 2·657	− 0·402	+ 0·22	2218
129	R. P. L. 120	− 11·2544	+ 0·3418	...	+ 2·479	+ 1·628	...	...
130	... ...	+ 4·0285	+ 0·0069	...	+ 2·227	− 0·585	...	...
131	60 Ophiuchi β ...	+ 2·9650	+ 0·0030	− 0·004	+ 1·944	− 0·431	− 0·17	2229
132	86 Herculis μ ...	+ 2·3699	+ 0·0025	− 0·024	+ 1·580	− 0·346	+ 0·75	2237
133	... ...	+ 4·8723	+ 0·0089	...	+ 1·492	− 0·709	...	...
134	72 Ophiuchi	+ 2·8475	+ 0·0019	− 0·006	− 0·161	− 0·415	− 0·09	2275
135	Taylor 8410	+ 3·6598	+ 0·0010	...	− 0·406	− 0·534	...	...
136	13 Sagittarii μ¹ ...	+ 3·5877	+ 0·0009	− 0·001	− 0·597	− 0·523	− 0·00	2284
137	Stone 9951	+ 5·8016	− 0·0053	...	− 0·739	− 0·844	...	...
138	23 Ursæ Minoris δ ...	− 19·4754	− 0·2819	+ 0·026	− 0·852	+ 2·838	− 0·04	2395
139	Taylor 8440	+ 5·5356	− 0·0072	− 0·003	− 1·096	− 0·806	0·00	Stone
140	24 Ursæ Minoris ...	− 22·3111	− 0·5148	+ 0·067	− 1·201	+ 3·247	+ 0·02	2417

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Mean Positions of Stars for 1884, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
141	Taylor 8454	6·0	...	18	15	1·34	126	43	19·5	5	0·57
142	Stone 10042	6·2	...	18	20	24·43	119	53	8·2	5	0·57
143	22 Sagittarii λ	3·1	...	18	20	48·85	115	29	2·1	2	0·59
144	Taylor 8520	6·7	...	18	25	11·35	112	58	27·4	4	0·57
145	Stone 10137	6·9	...	18	31	2·41	154	44	44·7	5	0·61
146	3 Lyræ α (*Vega*)	0·2	...	18	33	0·47	51	19	23·7	6	0·58
147	Stone 10173	6·5	...	18	34	37·14	151	12	23·6	5	0·64
148	Taylor 8603	6·8	...	18	37	59·69	140	12	45·0	5	0·58
149	η^1 Coronæ Australis ...	5·7	...	18	40	28·14	133	48	15·9	5	0·60
150	... ...	8·0	2	18	43	52·86	125	30	56·7	2	0·63
151	10 Lyræ β, Var. 1... ...	3·6	...	18	45	47·71	56	46	17·1	4	0·59
152	... ...	9·5	4	18	52	19·12	132	56	52·8	4	0·62
153	R. P. L. 131	6·5	...	18	52	43·72	3	26	19·6	6	0·69
154	... ...	8·6	3	18	53	58·88	128	6	50·7	3	0·59
155	Stone 10351	6·1	...	18	55	22·59	128	25	7·7	1	0·56
156	Stone 10391	7·8	...	19	0	37·26	132	36	15·2	2	0·58
157	Stone 10399	7·5	...	19	1	41·55	146	29	31·5	5	0·63
158	Stone 10404	6·2	...	19	1	47·22	132	4	28·3	5	0·59
159	Stone 10428	6·7	...	19	5	42·95	155	25	30·6	5	0·64
160	... ...	9·5	2	19	10	17·76	130	46	28·1	2	0·58
161	Stone 10465	5·9	...	19	11	58·55	125	37	52·5	2	0·55
162	25 Aquilæ ω	5·1	...	19	12	22·31	78	36	45·5	1	0·56
163	Stone 10487	7·0	...	19	14	18·07	119	49	16·5	1	0·58
164	49 Sagittarii χ^3	5·9	...	19	18	28·30	114	11	18·8	3	0·57
165	30 Aquilæ δ	3·5	...	19	19	38·93	87	6	55·6	2	0·58
166	... ...	9·0	2	19	26	3·06	146	54	53·7	1	0·69
167	Taylor 8982	6·3	...	19	28	40·08	148	14	17·8	3	0·59
168	Stone 10598	6·8	...	19	32	1·43	129	41	38·4	3	0·57
169	... ...	7·3	4	19	33	29·45	126	35	51·7	4	0·62
170	Stone 10624	7·2	...	19	36	25·79	131	52	59·1	2	0·63
171	Stone 10643	6·6	...	19	39	53·12	143	10	13·0	4	0·63
172	λ Ursæ Minoris	6·5	...	19	39	57·71	1	2	48·8	5	0·38
173	50 Aquilæ γ	2·8	...	19	40	44·60	79	40	6·2	4	0·58
174	53 Aquilæ α (*Altair*) ...	1·0	...	19	45	7·41	81	26	13·1	3	0·60
175	60 Aquilæ β	4·0	...	19	49	36·90	83	52	55·1	1	0·61

153.—Carrington 2882

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
141	Taylor 8454	+ 4·0676	− 0·0017	...	− 1·314	− 0·591	...	...
142	Stone 10042	+ 3·8377	− 0·0018	...	− 1·783	− 0·557	...	...
143	22 Sagittarii λ ...	+ 3·7070	− 0·0013	− 0·005	− 1·818	− 0·537	+ 0·20	2310
144	Taylor 8520	+ 4·8342	− 0·0093	...	− 2·200	− 0·701	...	...
145	Stone 10137	+ 5·8805	− 0·0249	...	− 2·706	− 0·850	...	...
146	3 Lyræ α	+ 2·0133	+ 0·0016	+ 0·017	− 2·878	− 0·290	− 0·30	2341
147	Stone 10173	+ 5·4772	− 0·0216	...	− 3·018	− 0·790	...	...
148	Taylor 8603	+ 4·6558	− 0·0127	...	− 3·309	− 0·670	...	...
149	η^1 Coronæ Australis..	+ 4·3346	− 0·0098	...	− 3·523	− 0·622	...	...
150	... ...	+ 4·0091	− 0·0073	...	− 3·817	− 0·573	...	...
151	10 Lyræ β	+ 2·2140	+ 0·0015	− 0·001	− 3·980	− 0·315	− 0·02	2369
152	... ...	+ 4·2845	− 0·0126	...	− 4·539	− 0·607	...	...
153	R. P. L. 131	− 18·5891	− 1·4722	...	− 4·573	+ 2·641	...	...
154	... ...	+ 4·0922	− 0·0104	...	− 4·680	− 0·579	...	...
155	Stone 10351	+ 4·1019	− 0·0109	...	− 4·798	− 0·579	...	...
156	Stone 10391	+ 4·2592	− 0·0145	...	− 5·243	− 0·598	...	...
157	Stone 10399	+ 5·0189	− 0·0291	...	− 5·333	− 0·705	...	...
158	Stone 10404	+ 4·2356	− 0·0144	...	− 5·341	− 0·594	...	...
159	Stone 10428	+ 5·8763	− 0·0544	...	− 5·672	− 0·822	...	...
160	... ...	+ 4·1715	− 0·0155	...	− 6·055	− 0·574	...	...
161	Stone 10465	+ 3·9838	− 0·0127	...	− 6·196	− 0·550	...	...
162	25 Aquilæ ω	+ 2·1865	− 0·0003	− 0·001	− 6·228	− 0·388	− 0·03	2432
163	Stone 10487	+ 3·7988	− 0·0103	...	− 6·388	− 0·523	...	...
164	49 Sagittarii χ^3 ...	+ 3·6380	− 0·0085	− 0·003	− 6·734	− 0·497	+ 0·01	2446
165	30 Aquilæ δ	+ 3·0091	− 0·0018	+ 0·015	− 6·830	− 0·410	− 0·09	2451
166	... ...	+ 4·9813	− 0·0408	...	− 7·355	− 0·674	...	...
167	Taylor 8982	+ 5·0721	− 0·0452	...	− 7·567	− 0·682	...	...
168	Stone 10598	+ 4·0939	− 0·0192	...	− 7·838	− 0·548	...	...
169	... ...	+ 3·9837	− 0·0172	...	− 7·956	− 0·531	...	...
170	Stone 10624	+ 4·1666	− 0·0221	...	− 8·190	− 0·553	...	...
171	Stone 10643	+ 4·6906	− 0·0382	...	− 8·465	− 0·617	...	...
172	λ Ursæ Minoris ...	− 63·2362	− 29·0936	− 0·050	− 8·472	+ 8·360	+ 0·01	2795
173	50 Aquilæ γ	+ 2·8518	− 0·0011	− 0·001	− 8·534	− 0·373	− 0·01	2511
174	53 Aquilæ α	+ 2·8919	− 0·0014	+ 0·035	− 8·879	− 0·374	− 0·38	2524
175	60 Aquilæ β ...	+ 2·9451	− 0·0020	+ 0·001	− 9·230	− 0·378	+ 0·47	2538

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Mean Positions of Stars for 1884, *January* 1*st*.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
176	Stone 10739	6·7	...	19	52	22·35	133	21	31·2	1	0·59
177	... ...	8·0	4	19	54	29·90	130	18	7·0	4	0·63
178	Stone 10797	6·6	...	20	0	43·46	137	24	3·5	2	0·58
179	Stone 10803	6·6	...	20	2	1·21	134	13	52·9	5	0·61
180	65 Aquilæ θ	3·4	...	20	5	19·17	91	9	53·1	20	0·70
181	Taylor 9303	6·2	...	20	8	3·20	117	22	40·4	3	0·62
182	6 Capricorni a^2	3·8	...	20	11	37·16	102	54	9·8	2	0·62
183	24 Cephei (*Hev.*), Var 2. ...	var.	...	20	12	39·27	1	13	17·0	1	0·75
184	Taylor 9343	6·5	...	20	13	15·40	140	21	21·6	1	0·59
185	... ...	8·5	1	20	18	5·71	121	8	2·9	1	0·70
186	... ...	8·5	1	20	21	33·47	133	19	21·9	1	0·62
187	Taylor 9464	7·8	...	20	26	44·31	112	37	23·7	1	0·63
188	R. P. L. 143	6·7	...	20	26	50·29	5	14	27·1	3	0·64
189	2 Delphini ε	4·1	...	20	27	40·21	79	5	26·1	10	0·78
190	Taylor 9561	7·2	...	20	37	18·15	126	14	39·1	1	0·61
191	50 Cygni α (*Deneb*) ...	1·5	...	20	37	28·48	45	7	58·7	5	0·72
192	Taylor 9573	7·0	...	20	39	25·58	136	16	38·0	2	0·64
193	2 Aquarii ε	3·8	...	20	41	23·66	99	55	11·8	10	0·78
194	Stone 11091	7·5	...	20	44	45·11	142	8	55·3	4	0·66
195	Stone 11115	6·7	...	20	47	8·92	118	21	46·3	2	0·65
196	32 Vulpeculæ	5·1	...	20	49	36·81	62	23	1·1	1	0·66
197	Lalande 40458	5·9	...	20	50	37·85	100	8	30·1	5	0·75
198	76 Draconis	...	...	20	50	54·95	7	53	59·1	4	0·77
199	Stone 11191	7·5	...	20	58	16·69	138	59	11·8	1	0·66
200	23 Capricorni θ	4·3	...	20	59	25·56	107	41	33·7	1	0·64
201	... ...	8·0	3	21	0	18·20	150	59	24·5	3	0·72
202	24 Capricorni A	4·6	...	21	0	20·45	115	28	6·3	1	0·65
203	61 Cygni—1*st*	5·5	...	21	1	41·84	51	49	11·8	2	0·68
204	61 Cygni—2*nd*	6·3	...	21	1	43·27	51	49	24·2	8	0·76
205	... ...	8·5	4	21	4	28·17	100	40	52·3	5	0·79
206	64 Cygni ζ	3·5	...	21	7	59·89	60	14	51·9	1	0·67
207	5 Cephei α	2·6	...	21	15	48·46	27	54	20·8	8	0·75
208	22 Aquarii β	3·1	...	21	25	27·12	96	4	51·0	2	0·71
209	... ...	9·0	4	21	33	43·81	119	45	19·4	5	0·75
210	ε Indi	5·2	...	21	54	28·88	147	15	41·8	10	0·76

188.—Carrington 3128

197—205.—Comparison stars for Asia in 1884.

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
176	Stone 10739	+ 4·1859	− 0·0268	...	− 9·444	− 0·536	...	...
177	... ...	+ 4·0677	− 0·0239	...	− 9·606	− 0·518	...	...
178	Stone 10797	+ 4·3292	− 0·0338	...	− 10·081	− 0·543	...	...
179	Stone 10803	+ 4·1937	− 0·0297	...	− 10·180	− 0·524	...	...
180	65 Aquilæ θ	+ 3·0956	− 0·0042	− 0·000	− 10·426	− 0·382	− 0·01	2576
181	Taylor 9303	+ 3·6594	− 0·0155	...	− 10·630	− 0·448	...	...
182	6 Capricorni a^2 ...	+ 3·3295	− 0·0084	+ 0·002	− 10·894	− 0·403	− 0·02	2595
183	24 Cephei (*Hev.*) ...	− 49·4201	− 25·4047	...	− 10·970	+ 6·038	...	...
184	Taylor 9343	+ 4·4207	− 0·0417	...	− 11·014	− 0·535	...	...
185	... ...	+ 3·7378	− 0·0191	...	− 11·365	− 0·447	...	...
186	... ...	+ 4·1003	− 0·0318	...	− 11·600	− 0·484	...	...
187	Taylor 9464	+ 3·5191	− 0·0141	...	− 11·981	− 0·408	...	...
188	R. P. L. 143	− 8·6122	− 1·2853	...	− 11·987	+ 1·012	...	...
189	2 Delphini ε	+ 2·8664	− 0·0013	− 0·001	− 12·046	− 0·330	+ 0·02	2642
190	Taylor 9561	+ 3·8305	− 0·0255	...	− 12·708	− 0·428	...	...
191	50 Cygni α	+ 2·0437	+ 0·0021	− 0·000	− 12·720	− 0·226	− 0·00	2679
192	Taylor 9573	+ 4·1454	− 0·0390	...	− 12·851	− 0·460	...	...
193	2 Aquarii ε	+ 3·2505	− 0·0084	− 0·000	− 12·983	− 0·356	+ 0·03	2681
194	Stone 11091	+ 4·3670	− 0·0517	...	− 13·206	− 0·475	...	...
195	Stone 11115	+ 3·6105	− 0·0192	...	− 13·364	− 0·388	...	...
196	32 Vulpeculæ ...	+ 2·5559	+ 0·0026	− 0·002	− 13·523	− 0·270	+ 0·00	2709
197	Lalande 40458 ...	+ 3·2482	− 0·0087	...	− 13·597	− 0·434	...	...
198	76 Draconis	− 4·0051	− 0·5286	+ 0·014	− 13·607	+ 0·435	− 0·01	2754
199	Stone 11191	+ 4·1674	− 0·0464	...	− 14·073	− 0·429	...	...
200	23 Capricorni θ ...	+ 3·3747	− 0·0128	+ 0·004	− 14·144	− 0·344	+ 0·05	2733
201	... ...	+ 4·7746	− 0·0859	...	− 14·199	− 0·488	...	...
202	24 Capricorni A. ...	+ 3·5220	− 0·0178	− 0·005	− 14·201	− 0·358	+ 0·02	2737
203	61 Cygni—1*st* ...	+ 2·3346	+ 0·0044	+ 0·344	− 14·281	− 0·233	− 3·23	2744
204	61 Cygni—2*nd* ...	+ 2·3348	+ 0·0044	+ 0·350	− 14·284	− 0·233	− 3·03	2745
205	... ...	+ 3·2472	− 0·0096	...	− 14·454	− 0·323	...	...
206	64 Cygni ζ	+ 2·5512	+ 0·0038	− 0·002	− 14·666	− 0·248	+ 0·07	2760
207	5 Cephei α	+ 1·4148	− 0·0071	+ 0·021	− 15·124	− 0·130	− 0·03	2786
208	22 Aquarii β... ...	+ 3·1613	− 0·0071	− 0·001	− 15·664	− 0·282	+ 0·00	2797
209	... ...	+ 3·5304	− 0·0223	...	− 16·054	− 0·303	...	...
210	ε Indi...	+ 4·1558	− 0·0724	+ 0·480	− 17·114	− 0·313	+ 2·45	Stone

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Mean Positions of Stars for 1884, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
211	34 Aquarii α	3·2	...	21	59	49·58	90	52	59·6	1	0·73
212	48 Aquarii γ	4·1	...	22	15	39·87	91	58	18·2	10	0·82
213	R. P. L. 150	5·5	...	22	22	23·00	1	28	35·3	1	0·75
214	R. P. L. 151	6·9	...	22	22	48·81	1	21	42·9	2	0·75
215	R. P. L. 153	7·6	...	22	26	42·58	2	30	27·7	2	0·52
216	42 Pegasi ζ	3·6	...	22	35	40·53	79	46	26·9	2	0·75
217	73 Aquarii λ	3·8	...	22	46	33·68	98	11	49·0	14	0·78
218	24 Pis. Aus. α (*Fomalhaut*)	1·3	...	22	51	14·28	120	14	12·3	2	0·87
219	6 Piscium γ	3·8	...	23	11	9·09	87	21	5·7	2	0·76
220	8 Piscium κ	5·0	...	23	20	59·09	89	22	48·9	1	0·76
221	17 Piscium ι	4·3	...	23	33	58·95	85	0	10·3	1	0·77
222	28 Piscium ω	4·2	...	23	53	21·30	83	46	44·9	1	0·77

213. Groombridge 3820. 214.—Groombridge 3824. 215.—Carrington 3466.

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
211	34 Aquarii α	+ 3·0827	− 0·0041	− 0·001	− 17·359	− 0·219	− 0·00	2890
212	48 Aquarii γ	+ 3·0926	− 0·0042	+ 0·007	− 18·011	− 0·191	− 0·02	2943
213	R. P. L. 150	− 3·9833	− 1·2483	+ 0·052	− 18·262	+ 0·248	− 0·04	2993
214	R. P. L. 151	− 4·1389	− 1·3184	+ 0·025	− 18·277	+ 0·256	− 0·01	2997
215	R. P. L. 153	− 9·0126	− 4·2996	...	− 18·415	+ 0·528	...	...
216	42 Pegasi ζ	+ 2·9856	+ 0·0023	+ 0·004	− 18·711	− 0·149	+ 0·02	2992
217	73 Aquarii λ	+ 3·1330	− 0·0063	− 0·002	− 19·033	− 0·137	− 0·04	3019
218	24 Piscis Australis α ..	+ 3·3027	− 0·0210	+ 0·023	− 19·158	− 0·135	+ 0·16	3032
219	6 Piscium γ	+ 3·0592	+ 0·0005	+ 0·049	− 19·600	− 0·087	− 0·02	3082
220	8 Piscium κ	+ 3·0699	0·0000	+ 0·004	− 19·764	− 0·069	+ 0·10	3116
221	17 Piscium ι	+ 3·0591	+ 0·0030	+ 0·023	− 19·925	− 0·042	+ 0·44	3148
222	28 Piscium ω ...	+ 3·0681	+ 0·0047	+ 0·009	− 20·045	− 0·005	+ 0·11	3191

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SEPARATE RESULTS

OF

OBSERVATIONS

OF THE FIXED STARS

MADE WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1885

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Separate Results of Madras Meridian Circle Observations in 1885.

Number and Date.	Magnitude.	Mean Right Ascension 1885. h. m. s.	No. of Wires.	Mean Polar Distance 1885. ° ′ ″	Observer.
1		*R. P. L.* 10.			
Jan. 1	...	0 51 56·17	3	1 35 33·5	M
2		43 *Andromedæ* β			
Jan. 1	...	1 3 17·68	...	54 59 20·9	M
3		1 *Tauri o, Var.* 5.			
Jan. 1	...	3 18 37·50	..	81 22 35·3	M
2	...	18 37·49	...	22 35·7	M
5	...	18 37·60	...	22 35·5	R
8	...	18 37·62	...	22 34·6	R
14	...	18 37·56	...	22 35·2	R
17	...	18 37·50	...	22 34·8	R
20	...	18 37·56	...	22 36·5	R
Dec. 28	...	18 37·53	...	22 36·8	R
4		18 *Eridani* ε			
Jan. 1	...	3 27 30·76	...	99 50 53·1	M
2	...	27 30·74	...	50 55·1	M
5	...	27 30·62	...	50 53·7	R
8	...	27 30·62	...	50 52·7	R
10	...	27 30·71	...	50 53·1	R
14	...	27 30·67	...	50 53·6	R
17	...	27 30·75	...	50 53·0	R
20	...	27 30·73	...	50 53·6	R
Dec. 28	...	27 30·75	...	50 54·6	R
5		37 *Tauri* A.[1]			
Jan. 2	...	3 57 53·79	...	68 14 0·7	M
5	...	57 53·79	...	13 59·8	R
8	...	57 53·77	...	13 59·6	R
10	...	57 53·77	...	13 58·5	R
14	...	57 53·78	...	13 59·6	R
17	...	57 53·77	...	13 59·1	R
23	...	57 53·81	...	14 0·9	R
26	...	57 53·80	...	13 59·3	R
29	...	57 53·78	...	13 59·6	R

Number and Date.	Magnitude.	Mean Right Ascension 1885. h. m. s.	No. of Wires.	Mean Polar Distance 1885. ° ′ ″	Observer.
6		57 *Eridani* μ			
Jan. 10	...	4 39 45·14	...	93 27 58·0	R
20	..	39 45·12	...	27 59·4	R
23	...	39 45·14	...	28 2·7	R
26	...	39 45·11	...	27 58·7	R
29	...	39 45·16	...	27 58·5	R
31	...	39 45·13	...	27 59·5	R
Feb. 3	...	39 45·29	...	27 59·1	M
6	...	39 45·20	...	28 0·7	M
9	...	39 45·15	...	27 58·4	M
10	...	39 45·14	...	27 57·9	M
7		*R. P. L.* 37.			
Jan. 8	...	4 51 8·19	3	4 11 38·9	R
14	...	51 8·48	3	11 39·1	R
17	...	51 8·33	3	11 37·9	R
20	...	51 8·41	3	11 39·1	R
26	...	51 8·02	3	11 39·1	R
29	...	51 8·30	3	11 37·9	R
Feb. 6	...	51 8·41	3	11 39·4	M
10	...	51 8·16	3	11 38·1	M
14	...	51 8·76	3	11 38·2	M
20	...	51 8·91	3	11 38·6	M
8		34 *Orionis* δ, *Var.* 1.			
Jan. 23	...	5 26 7·82	...	90 23 6·2	R
29	...	26 7·83	...	23 4·9	R
Feb. 3	...	26 7·81	..	23 6·3	M
6	...	26 7·91	...	23 4·1	M
9	...	26 7·91	...	23 5·6	M
11	...	26 8·00	...	23 4·7	M
12	...	26 7·84	...	23 5·6	M
13	...	26 7·91	...	23 5·8	M
14	...	26 7·91	...	23 4·9	M
17	...	26 7·98	...	23 4·5	M
9		46 *Orionis* ε			
Jan. 26	...	5 30 22·61	...	91 16 35·3	R
31	...	30 22·67	...	16 37·0	R
Feb. 10	...	30 22·67	...	16 35·9	M
11	...	30 22·61	...	16 37·0	M

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Separate Results of Madras Meridian Circle Observations in 1885.

Number and Date.	Magnitude.	Mean Right Ascension 1885. h. m. s.	No. of Wires.	Mean Polar Distance 1885. ° ′ ″	Observer.
Feb. 12	...	5 30 22·70	...	91 16 37·2	M
14	...	30 22·65	...	16 35·8	M
16	...	30 22·56	...	16 36·9	M
17	...	30 22·52	...	16 35·8	M
18	...	30 22·65	...	16 35·1	R
19	...	30 22·60	...	16 37·8	M
10		53 *Orionis* κ			
Jan. 31	...	5 42 18·09	...	99 42 42·1	R
Feb. 3	...	42 18·02	...	42 42·8	M
6	...	42 18·01	...	42 43·0	M
9	...	42 18·06	...	42 44·1	M
10	...	42 18·08	...	42 40·8	M
11	...	42 18·02	...	42 42·3	M
12	...	42 18·07	...	42 43·1	M
13	...	42 18·00	...	42 42·7	M
14	...	42 18·05	...	42 42·8	M
16	...	42 18·21	...	42 43·9	M
11		7 *Geminorum* η			
Feb. 13	...	6 7 56·21	...	67 27 41·7	M
16	...	7 56·11	...	27 41·4	M
17	...	7 56·13	...	27 38·9	M
18	...	7 56·14	...	27 38·3	R
19	...	7 56·13	...	27 37·2	M
20	...	7 56·10	...	27 38·3	M
23	...	7 56·12	...	27 36·4	M
26	...	7 56·17	...	27 36·4	M
28	...	7 56·13	...	27 36·5	M
Mar. 9	...	7 56·11	...	27 38·4	R
12		31 *Geminorum* ξ			
Feb. 23	...	6 38 50·12	...	76 58 54·6	M
26	...	38 50·15	...	58 55·3	M
28	...	38 50·12	...	58 53·4	M
Mar. 9	...	38 50·16	...	58 53·2	R
12	...	38 50·11	...	58 52·8	R
14	...	38 50·12	...	58 52·6	R
17	...	38 50·12	...	58 53·1	M
20	..	38 50·05	...	58 53·1	M
23	...	38 50·18	...	58 52·7	R
26	...	38 50·17	...	58 52·3	R

Number and Date.	Magnitude.	Mean Right Ascension 1885. h. m. s.	No. of Wires.	Mean Polar Distance 1885. ° ′ ″	Observer.
13		*B. D* +28·1247.			
Feb. 10	8·5	6 42 3·56	...	61 19 49·8	M
11	...	42 3·53	...	19 49·9	M
12	8·5	42 3·57	...	19 51·6	M
17	8·5	42 3·23	...	19 50·0	M
18	8·5	42 3·29	...	19 49·7	R
14		*W. B. N.* VI. 1239.			
Feb. 13	8·5	6 42 26·33	...	61 33 10·0	M
14	8·5	42 26·38	...	33 10·0	M
16	8·5	42 26·60	...	33 12·9	M
19	8·5	42 26·32	...	33 13·4	M
20	8·5	42 26·34	...	33 12·7	M
15		51 *Cephei* (*Hev.*).			
Feb. 26	...	6 46 16·62	3	2 46 34·1	M
Mar. 3	...	46 16·21	3	46 32·9	R
6	...	46 16·87	3	46 35·0	R
12	...	46 16·62	3	46 33·6	R
20	...	46 15·85	3	46 32·0	M
23	...	46 16·28	3	46 32·9	R
26	...	46 15·89	3	46 33·4	R
28	...	46 16·54	3	46 34·5	R
30	...	46 15·77	3	46 31·6	R
Apl. 1	...	46 15·50	2	46 32·7	R
		51 *Cephei* (*Hev.*)—*s.p.*			
Aug. 17	...	6 46 16·07	3	2 46 34·0	R
Sep. 7	...	46 16·60	3	46 34·8	R
16		14 *Canis Majoris* θ			
Feb. 18	...	6 48 50·77	...	101 53 42·4	R
19	...	48 50·82	...	53 43·2	M
20	...	48 50·81	...	53 43·8	M
23	...	48 50·79	...	53 42·9	M
28	...	48 50·80	...	53 44·3	M
Mar. 9	...	48 50·78	...	53 43·2	R
14	...	48 50·78	...	53 41·5	R
17	...	48 50·72	...	53 43·3	M
28	...	48 50·85	...	53 43·6	R
Apl. 1	...	48 50·76	..	53 42·4	R

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Separate Results of Madras Meridian Circle Observations in 1885.

Number and Date.	Magnitude.	Mean Right Ascension 1885. h. m. s.	No. of Wires.	Mean Polar Distance 1885. ° ′ ″	Observer.
17		3 *Canis Minoris* β			
Feb. 26	...	7 20 54·75	...	81 28 48·7	M
Mar. 3	...	20 54·93	...	28 47·0	R
6	...	20 54·90	...	28 45·9	R
14	...	20 54·83	..	28 45·4	R
17	...	20 54·90	...	28 48·3	M
20	...	20 54·91	...	28 46·4	M
23	...	20 54·83	...	28 46·3	R
26	...	20 54·77	...	28 46·4	R
28	...	20 54·78	...	28 46·4	R
30	...	20 54·89	...	28 46·3	R
18		ξ *Argûs.*			
Mar. 3	...	7 44 27·42	...	114 34 17·9	R
6	...	44 27·43	...	34 19·4	R
12	...	44 27·48	...	34 19·0	R
23	...	44 27·42	...	34 17·8	R
26	...	44 27·47	...	34 17·6	R
28	...	44 27·47	...	34 18·2	R
30	...	44 27·40	...	34 15·7	R
Apl. 1	...	44 27·46	...	34 18·3	R
3	...	44 27·60	...	34 17·8	R
8	...	44 27·53	...	34 19·6	M
19		17 *Cancri* β			
Mar. 3	...	8 10 16·65	...	80 27 38·5	R
6	...	10 16·67	...	27 38·9	R
12	...	16 16·69	...	27 39·2	R
20	...	10 16·66	...	27 37·7	M
30	...	10 16·69	...	27 38·2	R
Apl. 1	...	10 16·74	...	27 38·3	R
3	...	10 16·73	...	27 37·4	R
8	...	10 16·59	..	27 38·2	M
11	...	10 16·64	...	27 37·5	M
14	...	10 16·71	...	27 38·2	M
20		43 *Cancri* γ			
Apl. 3	...	8 36 37·58	...	68 7 7·5	R
8	...	36 37·80	...	7 7·0	M
11	...	36 37·78	...	7 7·9	M
14	...	36 37·77	...	7 7·8	M
Apl. 17	...	8 36 37·74	...	68 7 7·9	M
21	...	36 37·62	...	7 6·9	M
24	...	36 37·63	...	7 7·1	M
28	...	36 37·85	...	7 6·3	M
21		65 *Cancri a*			
Apl. 11	...	8 52 11·79	...	77 41 52·1	M
14	...	52 11·73	...	41 52·1	M
17	...	52 11·78	...	41 52·8	M
21	...	52 11·84	...	41 52·2	M
24	...	52 11·85	...	41 51·8	M
28	...	52 11·73	...	41 52·2	M
22		14 *Leonis o*			
Apl. 17	...	9 35 0·72	...	79 35 7·4	M
21	...	35 0·78	...	35 6·6	M
24	...	35 0·76	...	35 7·2	M
28	...	35 0·67	...	35 6·7	M
23		*R. P. L.* 72.			
Apl. 14	...	10 12 46·74	3	5 9 53·0	M
17	...	12 46·44	3	9 53·8	M
21	...	12 46·27	3	9 50·5	M
24	...	12 46·18	3	9 52·3	M
28	...	12 46·34	3	9 52·2	M
May 1	..	12 46·73	3	9 53·2	R
9	...	12 46·25	3	9 52·8	R
13	...	12 46·12	3	9 52·3	R
		R. P. L. 72—*s.p.*			
Sep. 25	...	10 12 45·57	3	5 9 53·8	R
Oct. 7	...	12 46·70	3	9 54·6	M
24		42 *Hydræ* μ			
May 1	...	10 20 31·69	...	106 14 57·9	R
5	...	20 31·69	...	14 58·9	R
7	...	20 31·70	...	14 57·8	R
9	...	20 31·71	...	14 55·9	R
11	...	20 31·69	...	14 58·1	R
13	...	20 31·68	...	14 57·4	R

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Separate Results of Madras Meridian Circle Observations in 1885.

Number and Date.	Magnitude.	Mean Right Ascension 1885. h. m. s.	No. of Wires.	Mean Polar Distance 1885. ° ′ ″	Observer.
May 15	...	10 20 31·66	...	106 14 57·6	R
18	...	20 31·66	...	14 57·8	R
20	...	20 31·73	...	14 56·8	R
22	...	20 31·69	...	14 56·9	R
25		58 *Leonis d.*			
May 1	...	10 54 37·29	...	85 45 55·0	R
7	...	54 37·27	...	45 55·3	R
9	...	54 37·28	...	45 53·5	R
11	...	54 37·29	...	45 54·3	R
13	...	54 37·29	...	45 52·3	R
15	...	54 37·28	...	45 55·1	R
18	...	54 37·27	...	45 54·8	R
20	...	54 37·28	...	45 54·3	R
22	...	54 37·28	...	45 55·2	R
25	...	54 37·28	...	45 54·0	R
26		84 *Leonis τ*			
May 5	...	11 22 1·42	...	86 30 37·0	R
7	...	22 1·37	...	30 37·6	R
11	...	22 1·36	...	30 36·1	R
20	...	22 1·35	...	30 36·6	R
28	...	22 1·41	...	30 38·0	R
30	...	22 1·40	...	30 36·7	R
June 2	...	22 1·42	...	30 38·3	M
5	...	22 1·39	...	30 38·3	M
27		8 *Virginis π*			
May 1	...	11 54 58·79	...	82 44 38·9	R
5	...	54 58·78	...	44 38·5	R
9	...	54 58·78	...	44 38·2	R
13	...	54 58·80	...	44 39·1	R
15	...	54 58·82	...	44 38·8	R
18	...	54 58·84	...	44 38·7	R
22	...	54 58·81	...	44 38·9	R
25	...	54 58·83	...	44 38·0	R
28	...	54 58·83	...	44 38·9	R
30	...	54 58·81	...	44 38·3	R
28		*R. P. L.* 92.			
May 22	...	12 18 27·52	3	2 55 27·3	R
25	...	18 27·56	3	55 25·7	R

Number and Date.	Magnitude.	Mean Right Ascension 1885. h. m. s.	No. of Wires.	Mean Polar Distance 1885. ° ′ ″	Observer.
29		7 *Corvi* δ^2			
May 25	...	12 23 54·90	..	105 52 29·8	R
28	...	23 54·89	...	52 31·0	R
30	...	23 54·94	...	52 29·9	R
June 2	...	23 54·90	...	52 34·7	M
5	...	23 54·94	...	52 29·7	M
30		43 *Virginis δ*			
June 2	...	12 49 48·67	..	85 58 37·1	M
5	...	49 48·68	...	58 36·1	M
31		*Anon.*			
May 5	8·7	13 57 30·50	...	90 4 23·7	R
9	8·7	57 30·57	...	4 24·4	R
11	8·7	57 30·61	...	4 23·9	R
15	8·7	57 30·62	...	4 24·3	R
22	8·7	57 30·57	...	4 23·6	R
32		*Lalande* 25863.			
May 7	9·0	13 59 21·46	...	90 21 51·5	R
13	9·0	59 21·58	...	21 51·6	R
18	9·0	59 21·48	...	21 51·7	R
20	9·0	59 21·43	...	21 51·7	R
25	9·0	59 21·40	...	21 52·2	R
33		*R. P. L.* 110.—*s.p.*			
Jan. 1	...	14 52 29·66	3	3 34 31·7	M
8	...	52 29·08	3	34 31·0	R
14	...	52 29·47	3	34 31·9	R
17	...	52 29·35	3	34 32·7	R
20	...	52 29·34	3	34 32·3	R
34		35 *Ophiuchi η*			
Aug. 5	...	17 3 47·05	...	105 34 51·8	R
7	...	3 47·02	...	34 51·2	R
15	...	3 46·96	...	34 53·4	R
17	...	3 46·99	...	34 51·8	R
20	...	3 47·05	...	34 51·7	R

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Separate Results of Madras Meridian Circle Observations in 1885.

Number and Date.	Magnitude.	Mean Right Ascension 1885. h. m. s.	No of Wires.	Mean Polar Distance 1885. ° ′ ″	Observer.
35		*Anon.*			
Aug. 5	7·5	17 16 57·58	...	126 21 1·2	R
7	7·5	16 57·68	...	21 0·9	R
15	7·5	16 57·92	...	21 0·3	R
17	7·5	16 57·81	...	20 59·9	R
20	7·5	16 57·56	...	21 1·1	R
36		*Anon.*			
Aug. 15	8·5	17 22 41·45	...	130 46 48·4	R
17	8·5	22 41·45	...	46 47·6	R
20	8·5	22 41·55	...	46 49·0	R
37		60 *Ophiuchi* β			
Aug. 5	...	17 37 47·37	...	85 23 3·2	R
7	...	37 47·42	...	23 2·8	R
15	...	37 47·41	...	23 2·1	R
17	...	37 47·31	...	22 59·1	R
20	...	37 47·34	...	23 0·4	R
38		72 *Ophiuchi.*			
Aug. 5	...	18 1 53·77	...	80 27 5·8	R
7	...	1 53·77	...	27 4·4	R
17	...	1 53·90	...	27 4·1	R
20	...	1 53·82	...	27 5·2	R
39		23 *Ursæ Minoris* δ			
Aug. 17	...	18 9 24·50	3	3 23 19·6	R
Sep. 7	...	9 24·74	3	23 22·1	R
		23 *Ursæ Minoris* δ—*s.p.*			
Jan. 26	...	18 9 24·38	3	3 23 21·2	R
29	...	9 24·62	3	23 21·8	R
Feb. 6	...	9 24·72	3	23 22·2	M
10	...	9 24·18	3	23 22·5	M
14	...	9 25·07	3	23 23·2	M
20	...	9 25·08	3	23 21·8	M
26	...	9 25·04	3	23 22·6	M
Mar. 3	...	9 24·47	3	23 23·8	R
6	...	9 25·30	3	23 20·9	R
12	...	9 24·95	3	23 24·0	R

Number and Date.	Magnitude.	Mean Right Ascension 1885. h. m. s.	No. of Wires.	Mean Polar Distance 1885. ° ′ ″	Observer.
40		58 *Serpentis* η			
Sep. 7	...	18 15 21·51	...	92 55 40·0	R
41		22 *Sagittarii* λ			
Sep. 7	...	18 20 52·32	...	115 29 1·3	R
42		13 *Aquilæ* ϵ			
Sep. 7	...	18 54 24·16	...	75 5 12·3	R
43		λ *Ursæ Minoris.*			
Sep. 25	...	19 38 53·66	3	1 2 40·1	R
		λ *Ursæ Minoris*—*s.p.*			
Mar. 20	...	19 38 53·49	3	1 2 41·8	M
23	...	38 54·45	3	2 41·0	R
26	...	38 54·17	3	2 40·8	R
28	...	38 54·20	3	2 40·4	R
30	...	38 54·39	3	2 40·3	R
44		53 *Aquilæ a, Altair.*			
Sep. 12	...	19 45 10·28	...	81 26 3·9	R
15	...	45 10·29	...	26 3·8	R
45		65 *Aquilæ* θ			
Sep. 12	...	20 5 22·25	...	9 9 41·3	R
15	...	5 22·29	...	9 42·4	R
18	...	5 22·21	...	9 40·9	R
25	...	5 22·23	...	9 41·8	R
29	..	5 22·28	...	9 41·8	R
Oct. 1	M	5 22·24	...	9 41·0	M
3	M	5 22·27	...	9 40·5	M
5	M	5 22·32	...	9 39·1	M
7	M	5 22·29	...	9 42·9	M
9	M	5 22·23	...	9 42·7	M

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Separate Results of Madras Meridian Circle Observations in 1885.

Number and Date.	Magnitude.	Mean Right Ascension 1885. h. m. s.	No. of Wires.	Mean Polar Distance 1885. ° ′ ″	Observer.
46		*2 Delphini ϵ*			
Sep. 12	...	20 27 43·12	...	79 5 13·2	R
15	...	27 43·06	...	5 12·8	R
18	...	27 43·11	...	5 11·7	R
25	...	27 43·11	...	5 13·0	R
29	...	27 43·12	...	5 12·4	R
Oct. 1	...	27 43·15	...	5 11·5	M
3	...	27 43·07	...	5 10·3	M
5	...	27 43·01	...	5 11·8	M
7	...	27 43·03	...	5 12·1	M
9	...	27 43·00	...	5 13·5	M
47		*2 Aquarii ϵ*			
Sep. 18	...	20 41 26·99	...	99 54 56·4	R
25	...	41 26·96	...	54 56·6	R
29	...	41 26·90	...	54 56·6	R
Oct. 3	...	41 26·96	...	54 57·2	M
5	...	41 26·98	...	54 58·0	M
7	...	41 26·98	...	54 56·8	M
9	...	41 27·08	...	54 57·5	M
14	...	41 27·10	...	54 57·9	M
16	...	41 27·06	...	54 56·1	M
19	...	41 27·05	...	54 55·8	M
48		*23 Capricorni θ*			
Oct. 1	...	20 59 28·84	...	107 41 20·1	M
14	...	59 28·72	...	41 21·2	M
16	...	59 28·87	...	41 22·1	M
19	...	59 28·85	...	41 18·4	M
21	...	59 28·82	...	41 21·1	M
23	...	59 28·86	...	41 22·1	M

Number and Date.	Magnitude.	Mean Right Ascension 1885. h. m. s.	No. of Wires.	Mean Polar Distance 1885. ° ′ ″	Observer.
49		*48 Aquarii γ*			
Oct. 16	...	22 15 42·88	...	91 58 0·0	M
19	...	15 42·89	...	57 58·4	M
21	...	15 42·95	...	58 0·1	M
23	...	15 43·03	...	58 1·3	M
50		*73 Aquarii λ*			
Oct. 14	...	22 46 36·80	...	98 11 28·1	M
21	...	46 36·84	...	11 28·3	M
23	...	46 36·71	...	11 29·9	M
51		*R. P. L.* 155.			
Oct. 7	...	23 24 19·45	3	4 12 56·4	M
		R. P. L. 155.—*s.p.*			
Apl. 14	...	23 24 19·54	3	4 13 0·0	M
17	...	24 19·12	3	12 58·3	M
21	...	24 19·00	3	12 59·5	M
24	...	24 18·82	3	12 57·6	M
28	...	24 19·11	3	12 58·1	M
May 1	...	24 19·51	3	12 57·8	R
9	...	24 19·07	3	12 58·7	R
13	...	24 18·87	3	12 55·2	R
22	...	24 18·40	3	12 56·2	R
25	...	24 18·68	3	12 58·4	R

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MEAN POSITIONS OF STARS

OBSERVED WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1885

REDUCED TO JANUARY 1 OF THAT YEAR

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Mean Positions of Stars for 1885, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
1	R. P. L. 10	6·6	...	0	51	56·17	1	35	33·5	1	0·00
2	43 Andromedæ β... ...	2·2	...	1	3	17·68	54	59	20·9	1	0·00
3	1 Tauri o, Var. 5	Var.	...	3	18	37·55	81	22	35·6	8	0·14
4	18 Eridani ε	3·7	...	3	27	30·71	99	50	53·6	9	0·13
5	37 Tauri A[1]	4·4	...	3	57	53·78	68	13	59·7	9	0·04
6	57 Eridani μ	4·3	...	4	39	45·16	93	27	59·3	10	0·07
7	R. P. L. 37	7·0	...	4	51	8·40	4	11	38·6	10	0·07
8	34 Orionis δ, Var. 1 ...	Var.	...	5	26	7·89	90	23	5·3	10	0·10
9	46 Orionis ε	1·8	...	5	30	22·62	91	16	36·4	10	0·11
10	53 Orionis κ	2·2	...	5	42	18·06	99	42	42·8	10	0·11
11	7 Geminorum η	3·5	...	6	7	56·14	67	27	38·4	10	0·14
12	31 Geminorum ξ	3·4	...	6	38	50·13	76	58	53·3	10	0·19
13	B. D. + 28. 1247 ...	8·5	4	6	42	3·44	61	19	50·2	5	0·12
14	W. B. N. VI. 1239... ...	8·5	5	6	42	26·38	61	33	11·8	5	0·13
15	51 Cephei (*Hev.*)... ...	5·3	...	6	46	16·24	2	46	33·3	12	0·28
16	14 Canis Majoris θ ...	4·2	...	6	48	50·79	101	53	43·1	10	0·18
17	3 Canis Minoris β ...	3·1	...	7	20	54·85	81	28	46·7	10	0·20
18	ξ Argûs	3·2	...	7	44	27·47	114	34	18·1	10	0·22
19	17 Cancri β	3·8	...	8	10	16·68	80	27	38·2	10	0·23
20	43 Cancri γ	4·8	...	8	36	37·72	68	7	7·3	8	0·29
21	65 Cancri α	4·3	...	8	52	11·79	77	41	52·2	6	0·30
22	14 Leonis o	3·8	...	9	35	0·73	79	35	7·0	4	0·31
23	R. P. L. 72	6·0	...	10	12	46·33	5	9	52·9	10	0·40
24	42 Hydræ μ	4·1	...	10	20	31·69	106	14	57·5	10	0·36
25	58 Leonis d	5·0	...	10	54	37·28	85	45	54·4	10	0·36
26	84 Leonis τ	5·1	...	11	22	1·39	86	30	37·3	8	0·38
27	8 Virginis π	4·4	...	11	54	58·81	82	44	38·6	10	0·37
28	R. P. L. 92	6·7	...	12	13	27·54	2	55	26·5	2	0·39
29	7 Corvi δ[2]...	3·1	...	12	23	54·91	105	52	31·0	5	0·41
30	43 Virginis δ	3·7	...	12	49	48·68	85	58	36·6	2	0·42
31	... ...	8·7	5	13	57	30·57	90	4	24·0	5	0·36
32	Lalande 25863	9·0	5	13	59	21·47	90	21	51·7	5	0·37
33	R. P. L. 110	7·0	...	14	52	29·38	3	34	31·9	5	0·03
34	35 Ophiuchi η	2·6	...	17	3	47·01	105	34	52·0	5	0·61
35	... ...	7·5	5	17	16	57·71	126	21	0·7	5	0·61

1.—Groombridge 144.
13—14.—Comparison stars for Vera in 1885.
23.—Groombridge 1620.
28.—Groombridge 1871.
31—32.—Comparison stars for Sylvia in 1885.
35.—Comparison star for comet in 1884.

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
1	R. P. L. 10	+ 13·8751	+ 8·4082	+ 0·153	− 19·541	+ 0·463	+ 0·03	65
2	43 Andromedæ β ...	+ 3·3278	+ 0·0286	+ 0·014	− 19·294	+ 0·139	+ 0·08	140
3	1 Tauri o, ...	+ 3·2270	+ 0·0115	− 0·005	− 12·982	+ 0·364	+ 0·07	477
4	18 Eridani ε	+ 2·8899	+ 0·0055	− 0·068	− 12·379	+ 0·336	− 0·01	493
5	37 Tauri A¹	+ 3·5322	+ 0·0153	+ 0·005	− 10·186	+ 0·447	+ 0·06	554
6	57 Eridani μ ...	+ 2·9964	+ 0·0055	− 0·000	− 6·879	+ 0·418	+ 0·00	657
7	R. P. L. 37	+ 20·4860	+ 1·4852	...	− 5·935	+ 2·853	...	...
8	34 Orionis δ ...	+ 3·0635	+ 0·0038	− 0·001	− 2·953	+ 0·443	+ 0·01	787
9	46 Orionis ε	+ 3·0429	+ 0·0035	− 0·002	− 2·585	+ 0·441	− 0·01	809
10	53 Orionis κ	+ 2·8442	+ 0·0027	− 0·002	− 1·547	+ 0·414	− 0·00	844
11	7 Geminorum η ...	+ 3·6269	+ 0·0007	− 0·005	+ 0·695	+ 0·529	+ 0·00	909
12	31 Geminorum ξ ...	+ 3·3771	− 0·0017	− 0·009	+ 3·383	+ 0·485	+ 0·20	989
13	B. D. + 28. 1247 ...	+ 3·7911	− 0·0051	...	+ 3·659	+ 0·542	...	...
14	W. B. N. VI. 1239 ...	+ 3·7843	− 0·0051	...	+ 3·693	+ 0·541	...	...
15	51 Cephei (*Hsv.*) ...	+ 30·0859	− 2·3086	− 0·040	+ 4·021	+ 4·297	+ 0·05	Gr.
16	14 Canis Majoris θ ...	+ 2·7971	+ 0·0004	− 0·011	+ 4·243	+ 0·397	+ 0·00	1011
17	3 Canis Minoris β ...	+ 3·2604	− 0·0041	− 0·004	+ 6·933	+ 0·444	+ 0·03	1079
18	ξ Argûs	+ 2·5235	+ 0·0008	− 0·001	+ 8·827	+ 0·327	− 0·02	1132
19	17 Cancri β	+ 3·2617	− 0·0072	− 0·004	+ 10·796	+ 0·397	+ 0·04	1180
20	43 Cancri γ	+ 3·4887	− 0·0143	− 0·009	+ 12·663	+ 0·390	+ 0·03	1230
21	65 Cancri α	+ 3·2854	− 0·0098	+ 0·001	+ 13·689	+ 0·345	+ 0·02	1269
22	14 Leonis o	+ 3·2177	− 0·0093	− 0·010	+ 16·173	+ 0·272	+ 0·02	1360
23	R. P. L. 72	+ 9·7429	− 1·5821	− 0·096	+ 17·898	+ 0·633	− 0·04	1399
24	42 Hydræ μ	+ 2·9085	+ 0·0040	− 0·010	+ 18·195	+ 0·171	+ 0·06	1451
25	58 Leonis d	+ 3·1002	− 0·0039	− 0·002	+ 19·243	+ 0·120	+ 0·01	1526
26	84 Leonis τ	+ 3·0859	− 0·0020	− 0·001	+ 19·779	+ 0·066	+ 0·01	1570
27	8 Virginis π	+ 3·0761	− 0·0022	− 0·003	+ 20·048	+ 0·002	+ 0·02	1618
28	R. P. L. 92	+ 1·5364	+ 0·0034	+ 0·285	+ 20·019	− 0·022	+ 0·02	1656
29	7 Corvi δ²	+ 3·1120	+ 0·0118	− 0·014	+ 19·944	− 0·055	+ 0·15	1675
30	43 Virginis δ ...	+ 3·0522	+ 0·0025	− 0·034	+ 19·582	− 0·103	+ 0·05	1723
31	... ...	+ 3·0732	+ 0·0075	...	+ 17·475	− 0·228	...	...
32	Lalande 25863 ...	+ 3·0766	+ 0·0077	...	+ 17·395	− 0·230	...	...
33	R. P. L. 110	− 11·5528	+ 2·9880	...	+ 14·637	+ 1·146	...	...
34	35 Ophiuchi η ..	+ 3·4340	+ 0·0073	+ 0·000	+ 4·870	− 0·487	− 0·10	2171
35	... ...	+ 4·0390	+ 0·0106	...	+ 3·743	− 0·581	...	...

15—Proper motions from *Greenwich Catalogue* 1880.

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Mean Positions of Stars for 1885, *January* 1*st*.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
36	... ...	8·8	...	17	22	41·48	130	46	48·3	3	0·68
37	60 Ophiuchi β	2·9	...	17	37	47·37	85	23	1·5	5	0·63
38	72 Ophiuchi	3·8	...	18	1	53·82	80	27	4·9	4	0·61
39	23 Ursæ Minoris δ ...	4·3	...	18	9	24·75	3	23	22·1	12	0·22
40	58 Serpentis η	3·4	...	18	15	21·51	92	55	40·0	1	0·68
41	22 Sagittarii λ	3·1	...	18	20	52·32	115	29	1·3	1	0·68
42	13 Aquilæ ε	4·1	..	18	54	24·16	75	5	12·3	1	0·68
43	λ Ursæ Minoris ...	6·5	...	19	38	54·06	1	2	40·7	6	0·31
44	53 Aquilæ α (*Altair*)	1·0	...	19	45	10·29	81	26	3·9	2	0·70
45	65 Aquilæ θ	3·4	...	20	5	22·26	91	9	41·4	10	0·74
46	2 Delphini ε	4·1	...	20	27	43·08	79	5	12·2	10	0·74
47	2 Aquarii ε	3·8	...	20	41	27·01	99	54	56·9	10	0·76
48	23 Capricorni θ	4·3	...	20	59	28·83	107	41	20·8	6	0·79
49	48 Aquarii γ	4·1	...	22	15	42·94	91	58	0·0	4	0·80
50	73 Aquarii λ	3·8	...	22	46	36·78	98	11	28·8	3	0·80
51	R. P. L. 155	7·0	...	23	24	19·05	4	12	57·8	11	0·87

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
36	... ...	+ 4·2104	+ 0·0111	...	+ 3·251	− 0·606	...	...
37	60 Ophiuchi β ...	+ 2·9650	+ 0·0030	− 0·004	+ 1·940	− 0·431	− 0·17	2229
38	72 Ophiuchi	+ 2·8475	+ 0·0019	− 0·006	− 0·166	− 0·415	− 0·09	2275
39	23 Ursæ Minoris δ ...	− 19·4808	− 0·2722	+ 0·026	− 0·823	+ 2·839	− 0·04	2895
40	58 Serpentis η ...	+ 3·1405	+ 0·0010	− 0·040	− 1·344	− 0·456	+ 0·68	2298
41	22 Sagittarii λ ...	+ 3·7070	− 0·0013	− 0·005	− 1·824	− 0·537	+ 0·20	2310
42	13 Aquilæ ε	+ 2·7263	+ 0·0004	− 0·005	− 4·716	− 0·385	+ 0·08	2390
43	λ Ursæ Minoris ..	− 63·5193	− 28·9896	− 0·050	− 8·388	+ 8·418	+ 0·01	2795
44	53 Aquilæ α	+ 2·8919	− 0·0014	+ 0·035	− 8·882	− 0·374	− 0·38	2524
45	65 Aquilæ θ	+ 3·0956	− 0·0042	− 0·000	− 10·430	− 0·382	− 0·01	2576
46	2 Delphini ε	+ 2·8664	− 0·0013	− 0·001	− 12·049	− 0·330	+ 0·02	2642
47	2 Aquarii ε	+ 3·2505	− 0·0084	− 0·000	− 12·987	− 0·356	+ 0·03	2681
48	23 Capricorni θ ...	+ 3·3745	− 0·0128	+ 0·004	− 14·147	− 0·344	+ 0·05	2733
49	48 Aquarii γ	+ 3·0926	− 0·0042	+ 0·007	− 18·013	− 0·191	− 0·02	2943
50	73 Aquarii λ	+ 3·1330	− 0·0063	− 0·002	− 19·035	− 0·137	− 0·04	3019
51	R. P. L. 155	+ 0·2603	− 0·3314	...	− 19·811	+ 0·003	...	...

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SEPARATE RESULTS

OF

OBSERVATIONS

OF THE FIXED STARS

MADE WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1886

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Separate Results of Madras Meridian Circle Observations in 1886.

Number and Date.	Magnitude.	Mean Right Ascension 1886. h. m. s.	No. of Wires.	Mean Polar Distance 1886. ° ′ ″	Observer.
1		43 *Andromedæ* β			
Dec. 11	...	1 8 20·99	...	54 59 3·7	R
2		1 *Ursæ Minoris* α, *Polaris.*			
Dec. 11	...	1 16 55·64	3	1 17 58·3	R
24	...	16 58·16	2	17 56·4	R
		1 *Ursæ Minoris* α, *Polaris—s.p.*			
June 11	...	1 16 58·29	3	1 17 59·1	M
3		110 *Piscium* o			
Jan. 1	...	1 39 22·52	...	81 24 59·2	M
Dec. 11	...	39 22·42	...	24 59·2	R
24	...	39 22·44	...	24 58·6	R
28	...	39 22·31	...	24 55·9	M
4		43 *Arietis* σ			
Jan. 15	...	2 45 11·92	...	75 23 14·5	R
Dec. 11	...	45 11·92	...	23 18·0	R
24	...	45 11·88	...	23 16·7	R
28	...	45 12·01	...	23 16·2	M
5		1 *Tauri* o, *Var.* 5.			
Jan. 1	...	3 18 40·62	...	81 22 24·5	M
7	...	18 40·73	...	22 22·1	R
15	...	18 40·77	...	22 21·6	R
19	...	18 40·74	...	22 22·8	R
Dec. 24	...	18 40·74	...	22 25·3	R
28	...	18 40·73	...	22 22·4	M
6		18 *Eridani* ε			
Jan. 1	...	3 27 33·58	...	99 50 40·1	M
7	...	27 33·54	...	50 41·1	R
15	...	27 33·48	...	50 40·9	R
19	...	27 33·50	...	50 38·3	R
29	...	27 33·60	...	50 43·1	R
7		37 *Tauri* A[1].			
Jan. 7	...	3 57 57·28	...	68 13 49·1	R
26	...	57 57·31	...	13 51·2	M
27	...	57 57·37	...	13 53·5	M
8		54 *Tauri* γ			
Jan. 19	...	4 13 18·41	...	74 38 54·4	M
26	...	13 18·34	...	38 56·8	M
27	...	13 18·23	...	38 56·2	M
29	...	13 18·35	...	38 56·2	R
9		57 *Eridani* μ			
Jan. 26	...	4 39 48·11	...	93 27 52·2	M
27	...	39 48·17	...	27 52·5	M
29	...	39 48·06	...	27 53·3	R
Feb. 6	...	39 48·23	...	27 54·4	M
13	...	39 48·18	...	27 51·3	M
15	...	39 48·10	...	27 51·1	M
10		*R. P. L.* 37.			
Jan. 1	...	4 51 28·18	3	4 11 31·4	M
29	...	51 28·67	7	11 32·9	R
30	...	51 28·55	7	11 31·7	R
Feb. 1	...	51 28·25	7	11 30·4	R
Dec. 28	...	51 29·00	3	11 33·2	M
11		19 *Orionis* β, *Rigel.*			
Jan. 24	...	5 9 3·48	...	98 20 2·2	R
30	...	9 3·54	...	20 5·0	R
Feb. 1	...	9 3·57	...	20 1·7	R
12		*R. P. L.* 40.			
Jan. 29	...	5 25 32·63	7	4 51 51·5	R
30	...	25 33·01	7	51 50·2	R
Feb. 1	...	25 31·75	7	51 50·0	R

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Separate Results of Madras Meridian Circle Observations in 1886.

Number and Date.	Magnitude.	Mean Right Ascension 1886. h. m. s.	No. of Wires.	Mean Polar Distance 1886. ° ′ ″	Observer.
13	34 *Orionis* δ, *Var.* 1.				
Jan. 24	...	5 26 11·00	...	90 23 2·0	R
Feb. 6	...	26 10·86	...	23 4·5	M
13	...	26 10·93	...	23 1·0	M
15	...	26 10·95	...	23 2·2	M
17	...	26 10·98	...	23 1·6	M
20	...	26 10·99	...	23 0·6	M
22	...	26 11·05	...	23 1·4	M
25	...	26 11·04	...	23 0·6	M
14	46 *Orionis* ε				
Jan. 24	...	5 30 25·66	...	91 16 31·7	R
Feb. 3	...	30 25·66	...	16 33·9	R
6	...	30 25·67	...	16 34·4	M
13	...	30 25·65	...	16 32·8	M
15	...	30 25·81	...	16 31·9	M
17	...	30 25·68	...	16 33·1	M
20	...	30 25·78	...	16 31·2	M
22	...	30 25·69	...	16 31·0	M
25	...	30 25·63	...	16 31·2	M
15	53 *Orionis* κ				
Jan. 30	...	5 42 20·98	...	99 42 40·4	R
Feb. 1	...	42 21·00	...	42 38·7	R
3	...	42 20·93	...	42 41·0	R
17	...	42 20·90	...	42 39·7	M
20	...	42 20·87	...	42 38·4	M
22	...	42 20·85	...	42 36·7	M
25	...	42 20·92	...	42 38·2	M
16	7 *Geminorum* η				
Feb. 1	...	6 7 59·66	...	67 27 38·3	R
17	51 *Cephei* (*Hev.*).				
Jan. 15	...	6 46 45·06	3	2 46 38·8	R
24	...	46 45·94	7	46 38·4	R
26	...	46 47·15	7	46 39·9	M
27	...	46 46·86	7	46 38·6	M
29	...	46 45·07	7	46 38·9	R
30	...	46 46·83	7	46 37·1	R
Feb. 6	...	6 46 48·96	7	2 46 42·6	M
13	...	46 45·88	7	46 38·9	M
15	...	46 46·37	7	46 37·7	M
17	...	46 46·14	7	46 38·4	M
22	...	46 44·42	7	46 38·8	M
	51 *Cephei* (*Hev.*)—*s.p.*				
Aug. 4	...	6 46 46·33	3	2 46 35·8	R
Sep. 4	...	46 45·84	1	46 27·7	M
25	...	46 46·54	3	46 38·2	M
18	3 *Canis Minoris* β				
Jan. 30	...	7 20 58·06	...	81 28 55·5	R
19	17 *Cancri* β				
Apl. 2	...	8 10 19·89	...	80 27 47·0	R
5	...	10 19·99	...	27 47·4	R
7	...	10 19·94	...	27 46·9	R
20	43 *Cancri* γ				
Apl. 2	...	8 36 41·23	...	68 7 19·2	R
5	...	36 41·21	...	7 20·4	R
7	...	36 41·26	...	7 20·2	R
9	...	36 41·22	...	7 21·6	R
12	...	36 41·27	...	7 19·8	R
21	65 *Cancri* a				
Apl. 2	...	8 52 15·11	...	77 42 3·6	R
7	...	52 15·05	...	42 4·9	R
9	...	52 15·08	...	42 4·9	R
12	...	52 15·05	...	42 4·7	R
22	76 *Cancri* κ				
Apl. 5	...	9 1 34·29	...	78 52 24·4	R
9	...	1 34·34	...	52 23·8	R
12	...	1 34·31	...	52 24·8	R
14	...	1 34·32	...	52 26·0	R
16	...	1 34·35	...	52 22·1	R

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Separate Results of Madras Meridian Circle Observations in 1886.

Number and Date.	Magnitude.	Mean Right Ascension 1886. h. m. s.	No. of Wires.	Mean Polar Distance 1886. ° ′ ″	Observer.
23		*Lalande* 18162.			
Apl. 5	8·5	9 6 46·14	...	78 51 48·0	R
7	8·5	6 46·19	...	51 46·6	R
9	8·5	6 46·25	...	51 47·6	R
12	8·5	6 46·32	...	51 48·2	R
14	8·5	6 46·40	...	51 47·1	R
24		14 *Leonis o*			
Apl. 14	...	9 35 3·89	...	79 35 20·5	R
16	...	35 3·94	...	35 19·8	R
19	...	35 3·91	...	35 20·1	R
21	...	35 3·94	...	35 22·2	R
24	...	35 3·96	...	35 22·0	R
25		24 *Leonis μ*			
Apl. 14	...	9 46 16·69	...	63 27 22·6	R
16	...	46 16·61	..	27 22·2	R
19	...	46 16·67	...	27 22·4	R
21	...	46 16·66	...	27 23·7	R
24	...	46 16·72	...	27 23·2	R
26		*R. P. L.* 72.			
Apl. 2	...	10 12 55·34	3	5 10 9·2	R
9	...	12 54·68	3	10 9·4	R
27		42 *Hydræ μ*			
Apl. 21	...	10 20 34·64	...	106 15 16·5	R
24	...	20 34·55	...	15 16·9	R
27	...	20 34·53	....	15 16·6	R
29	...	20 34·53	...	15 17·0	R
May 1	...	20 34·57	...	15 15·5	R
4	...	20 34·50	..	15 15·1	R
6	...	20 34·58	...	15 16·2	R
8	...	20 34·60	...	15 15·5	R
10	...	20 34·69	...	15 16·5	R
28		58 *Leonis d.*			
Apl. 19	...	10 54 40·37	...	85 46 12·7	R
27	...	54 40·41	...	46 13·8	R
29	...	54 40·40	...	46 14·0	R
May 1	...	10 54 40·38	...	85 46 13·5	R
4	...	54 40·49	...	46 13·1	R
6	...	54 40·34	...	46 13·3	R
8	...	54 40·32	...	46 12·2	R
10	...	54 40·32	...	46 13·5	R
29		84 *Leonis τ*			
Apl. 27	...	11 22 4·48	...	86 30 56·4	R
May 1	...	22 4·47	...	30 56·8	R
30		*Anon.*			
Apl. 7	9·5	11 38 38·70	...	80 56 10·5	R
12	9·7	38 38·60	...	56 11·5	R
16	9·5	38 38·55	...	56 11·0	R
21	9·5	38 38·66	...	56 10·0	R
27	9·5	38 38·83	...	56 8·8	R
31		*Anon.*			
Apl. 9	9·3	11 41 17·35	...	81 21 9·3	R
14	9·3	41 17·47	...	21 9·9	R
19	9·3	41 17·44	...	21 7·9	R
24	9·3	41 17·54	...	21 9·7	R
29	9·3	41 17·29	...	21 9·3	R
32		*Anon.*			
Apl. 5	9·0	11 41 42·62	...	81 0 52·6	R
May 1	9·0	41 42·60	4	0 51·2	R
4	9·0	41 42·73	...	0 50·1	R
6	9·0	41 42·78	...	0 51·4	R
10	9·0	41 42·72	...	0 50·2	R
33		8 *Virginis π*			
Apl. 29	...	11 55 1·89	...	82 44 59·9	R
May 4	...	55 1·85	...	45 0·2	R
6	...	55 1·93	...	44 59·9	R
8	...	55 1·93	...	44 59·3	R
10	...	55 1·84	...	44 58·5	R

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Separate Results of Madras Meridian Circle Observations in 1886.

Number and Date.	Magnitude.	Mean Right Ascension 1886. h. m. s.	No. of Wires.	Mean Polar Distance 1886. ° ′ ″	Observer.
34		*Lalande* 22762.			
Apl. 5	8·7	12 2 12·97	...	83 19 43·6	R
7	8·7	2 13·04	...	19 44·1	R
9	8·7	2 12·83	...	19 44·2	R
12	8·7	2 12·90	...	19 43·8	R
14	8·7	2 12·96	...	19 43·6	R
35		*R. P. L.* 92.			
Apl. 19	...	12 18 29·79	3	2 55 49·5	R
29	...	18 29·71	3	55 52·4	R
May 10	...	18 28·35	3	55 50·5	R
June 11	...	18 30·70	3	55 49·3	M
36		7 *Corvi* δ^2			
June 7	...	12 23 58·00	...	105 52 50·4	M
11	...	23 57·95	...	52 48·8	M
37		29 *Virginis* γ^1			
June 7	...	12 35 53·00	...	90 49 23·7	M
11	...	35 53·05	...	49 23·5	M
38		43 *Virginis* δ			
June 7	...	12 49 51·68	...	85 58 58·9	M
11	...	49 51·68	...	58 57·3	M
18	...	49 51·58	...	58 57·0	M
39		47 *Virginis* ϵ, *Vindemiatrix.*			
June 18	...	12 56 30·17	...	78 25 40·5	M
40		4 *Bootis* τ			
June 18	...	13 41 50·73	...	71 58 30·9	M
22	...	41 50·87	...	58 29·9	M
25	...	41 50·80	...	58 27·7	M
41		93 *Virginis* τ			
June 25	...	13 55 50·69	...	87 54 10·7	M
42		22 *Bootis f.*			
June 22	...	14 21 9·23	...	70 15 38·4	M
25	...	21 9·21	...	15 38·1	M
43		25 *Bootis* ρ			
June 22	...	14 26 54·88	...	59 7 40·0	M
44		*R. P. L.* 110.—*s.p.*			
Jan. 1	...	14 52 17·39	3	3 34 46·7	M
Dec. 11	...	52 16·87	3	34 45·6	R
24	...	52 18·94	3	34 45·5	R
28	...	52 17·84	3	34 48·8	M
45		72 *Ophiuchi.*			
Aug. 4	...	18 1 56·68	...	80 27 7·4	R
46		23 *Ursæ Minoris* δ			
Aug. 4	...	18 9 5·05	3	3 23 24·1	R
		23 *Ursæ Minoris* δ—*s.p.*			
Jan. 15	...	18 9 4·15	3	3 23 22·1	R
24	...	9 4·65	7	23 21·8	R
26	...	9 6·14	7	23 20·5	M
27	...	9 5·56	7	23 21·7	M
29	...	9 4·67	7	23 20·9	R
30	...	9 5·10	7	23 20·0	R
47		58 *Serpentis* η			
Sep. 4	...	18 15 24·68	...	92 55 39·3	M
48		22 *Sagittarii* λ			
Aug. 4	...	18 20 56·07	...	115 28 59·5	R
Sep. 4	...	20 56·06	...	28 58·3	M
49		13 *Aquilæ* ϵ			
Aug. 4	...	18 54 26·84	...	75 5 11·0	R
Sep. 25	...	54 26·92	...	5 12·4	M

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Separate Results of Madras Meridian Circle Observations in 1886.

Number and Date.	Magnitude.	Mean Right Ascension 1886. h. m. s.	No. of Wires.	Mean Polar Distance 1886. ° ′ ″	Observer.
50		52 *Sagittarii* h^3.			
Sep. 1	...	19 29 46·23	...	105 8 2·3	M
11	...	29 46·12	...	8 1·9	M
51		λ *Ursæ Minoris.*			
Sep. 4	...	19 37 50·38	3	1 2 32·0	M
25	...	37 51·15	3	2 33·3	M
		λ *Ursæ Minoris—s.p.*			
Feb. 1	...	19 37 49·92	7	1 2 31·4	R
6	...	37 53·56	7	2 25·7	M
13	...	37 50·53	7	2 30·2	M
15	...	37 50·96	7	2 31·8	M
17	...	37 50·75	7	2 31·7	M
22	...	37 49·77	7	2 31·5	M
52		53 *Aquilæ* α, *Altair.*			
Sep. 1	...	19 45 13·14	...	81 25 53·2	M
11	...	45 13·23	...	25 54·5	M
15	...	45 13·18	...	25 55·8	M
18	...	45 13·36	...	25 55·2	M
22	...	45 13·12	...	25 54·0	M

Number and Date.	Magnitude.	Mean Right Ascension 1886. h. m. s.	No. of Wires.	Mean Polar Distance 1886. ° ′ ″	Observer.
53		65 *Aquilæ* θ			
Sep. 1	...	20 5 25·34	...	91 9 31·1	M
4	...	5 25·29	...	9 30·8	M
11	...	5 25·38	...	9 30·1	M
15	...	5 25·40	...	9 31·4	M
18	...	5 25·35	...	9 31·8	M
22	...	5 25·38	...	9 31·6	M
25	...	5 25·42	...	9 33·1	M
54		2 *Delphini* ϵ			
Sep. 15	...	20 27 45·97	...	79 5 0·6	M
18	...	27 45·82	...	5 0·2	M
22	...	27 46·04	...	5 0·9	M
25	...	27 45·79	...	4 59·8	M
55		*R. P. L.* 155.—*s.p.*			
Apl. 2	...	23 24 19·72	3	4 12 40·6	R
9	...	24 19·10	3	12 39·3	R
19	...	24 18·47	3	12 39·4	R
29	...	24 19·48	3	12 37·8	R
May 10	...	24 17·86	3	12 34·9	R

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MEAN POSITIONS OF STARS

OBSERVED WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1886

REDUCED TO JANUARY 1 OF THAT YEAR

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Mean Positions of Stars for 1886, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
1	43 Andromedæ β... ...	2·2	...	1	3	20·99	54	59	3·7	1	0·94
2	1 Ursæ Minoris α, (*Polaris*)	2·2	...	1	16	57·36	1	17	57·9	3	0·79
3	110 Piscium *o*	4·4	...	1	39	22·42	81	24	58·2	4	0·73
4	43 Arietis σ	5·5	...	2	45	11·93	75	23	16·4	4	0·74
5	1 Tauri *o*, Var. 5 ...	Var.	...	3	18	40·73	81	22	23·1	6	0·35
6	18 Eridani ε	3·7	...	3	27	33·54	99	50	40·7	5	0·04
7	37 Tauri A^1	4·4	...	3	57	57·32	68	13	51·3	3	0·05
8	54 Tauri γ	3·9	...	4	13	18·33	74	38	55·9	4	0·07
9	57 Eridani μ	4·3	...	4	39	48·15	93	27	52·5	6	0·09
10	R. P. L. 37	6·8	...	4	51	28·53	4	11	31·9	5	0·25
11	19 Orionis β (*Rigel*) ...	0·3	...	5	9	3·53	98	20	3·0	3	0·08
12	R. P. L. 40	6·2	...	5	25	32·46	4	51	50·6	3	0·08
13	34 Orionis δ, Var. 1 ...	Var.	...	5	26	10·98	90	23	1·7	8	0·12
14	46 Orionis ε	1·8	...	5	30	25·69	91	16	32·4	9	0·12
15	53 Orionis κ	2·2	...	5	42	20·92	99	42	39·0	7	0·12
16	7 Geminorum η	3·5	...	6	7	59·66	67	27	38·3	1	0·09
17	51 Cephei (*Hev.*) ...	5·3	...	6	46	46·24	2	46	37·8	14	0·21
18	3 Canis Minoris β ...	3·1	...	7	20	58·06	81	28	55·5	1	0·08
19	17 Cancri β	3·6	...	8	10	19·94	80	27	47·1	3	0·26
20	43 Cancri γ	4·8	...	8	36	41·24	68	7	20·2	5	0·26
21	65 Cancri α	4·3	...	8	52	15·07	77	42	4·5	4	0·26
22	76 Cancri κ	5·0	...	9	1	34·32	78	52	24·2	5	0·27
23	Lalande 18162	8·5	5	9	6	46·26	78	51	47·5	5	0·27
24	14 Leonis *o*	3·8	...	9	35	3·93	79	35	20·9	5	0·30
25	24 Leonis μ	4·1	...	9	46	16·67	63	27	22·8	5	0·30
26	R. P. L. 72	5·9	...	10	12	55·01	5	10	9·3	2	0·26
27	42 Hydræ μ	4·1	...	10	20	34·58	106	15	16·2	9	0·33
28	58 Leonis *d*	5·0	...	10	54	40·38	85	46	13·3	8	0·33
29	84 Leonis τ	5·1	...	11	22	4·48	86	30	56·6	2	0·32
30	... ...	9·5	5	11	38	38·67	80	56	10·4	5	0·29
31	... ...	9·3	5	11	41	17·42	81	21	9·2	5	0·30
32	... ...	9·0	5	11	41	42·69	81	0	51·1	5	0·32
33	8 Virginis π	4·4	...	11	55	1·89	82	44	59·6	5	0·34
34	Lalande 22762	8·7	5	12	2	12·94	83	19	43·9	5	0·27
35	R. P. L. 92	6·7	...	12	13	29·64	2	55	50·4	4	0·35

12.—Groombridge 944. 23.—Comparison star for Ariadne in 1886. 26.—Groombridge 1620.
30—31—32—34.—Comparison stars for Vera in 1886. 35.—Groombridge 1871.

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
1	43 Andromedæ β ...	+ 3·3280	+ 0·0286	+ 0·014	− 19·293	+ 0·139	+ 0·08	140
2	1 Ursæ Minoris α ...	+ 22·4929	+ 16·9580	+ 0·108	− 18·933	+ 1·089	+ 0·00	102
3	110 Piscium ο ...	+ 3·1572	+ 0·0111	+ 0·003	− 18·198	+ 0·200	− 0·06	232
4	43 Arietis σ	+ 3·3025	+ 0·0150	− 0·000	− 15·066	+ 0·323	+ 0·04	400
5	1 Tauri ο	+ 3·2270	+ 0·0115	− 0·005	− 12·978	+ 0·364	+ 0·07	477
6	18 Eridani ε	+ 2·8899	+ 0·0055	− 0·068	− 12·376	+ 0·336	− 0·01	493
7	37 Tauri A¹	+ 3·5324	+ 0·0153	+ 0·005	− 10·182	+ 0·447	+ 0·06	554
8	54 Tauri γ	+ 3·4003	+ 0·0115	+ 0·007	− 9·002	+ 0·446	+ 0·03	583
9	57 Eridani μ	+ 2·9964	+ 0·0055	− 0·000	− 6·875	+ 0·413	+ 0·00	657
10	R. P. L. 37	+ 20·5020	+ 1·4802	...	− 5·907	+ 2·861	...	...
11	19 Orionis β	+ 2·8813	+ 0·0040	− 0·001	− 4·421	+ 0·412	− 0·01	736
12	R. P. L. 40	+ 18·6049	+ 0·5814	...	− 3·004	+ 2·684	...	...
13	34 Orionis δ	+ 3·0635	+ 0·0038	− 0·001	− 2·948	+ 0·443	+ 0·01	787
14	46 Orionis ε	+ 3·0429	+ 0·0035	− 0·002	− 2·580	+ 0·441	− 0·01	809
15	53 Orionis κ	+ 2·8442	+ 0·0027	− 0·002	− 1·543	+ 0·414	− 0·00	844
16	7 Geminorum η ...	+ 3·6269	+ 0·0007	− 0·005	+ 0·700	+ 0·529	+ 0·00	909
17	51 Cephei (*Hev.*) ...	+ 30·0605	− 2·3299	− 0·040	+ 4·064	+ 4·291	+ 0·05	1880
18	3 Canis Minoris β ...	+ 3·2604	− 0·0041	− 0·004	+ 6·938	+ 0·444	+ 0·03	1079
19	17 Cancri β	+ 3·2616	− 0·0072	− 0·004	+ 10·799	+ 0·397	+ 0·04	1180
20	43 Cancri γ	+ 3·4885	− 0·0143	− 0·009	+ 12·667	+ 0·390	+ 0·03	1230
21	65 Cancri α	+ 3·2854	− 0·0098	+ 0·001	+ 13·692	+ 0·345	+ 0·02	1269
22	76 Cancri κ	+ 3·2571	− 0·0093	− 0·003	+ 14·277	+ 0·329	− 0·01	1287
23	Lalande 18162 ...	+ 3·2529	− 0·0094	...	+ 14·593	+ 0·320	...	...
24	14 Leonis ο	+ 3·2176	− 0·0093	− 0·010	+ 16·176	+ 0·272	+ 0·02	1360
25	24 Leonis μ	+ 3·4404	− 0·0198	− 0·019	+ 16·736	+ 0·271	+ 0·05	1384
26	R. P. L. 72	+ 9·7288	− 1·5787	− 0·096	+ 17·904	+ 0·631	− 0·04	1399
27	42 Hydræ μ	+ 2·9085	+ 0·0040	− 0·010	+ 18·197	+ 0·171	+ 0·06	1451
28	58 Leonis d	+ 3·1002	− 0·0039	− 0·002	+ 19·244	+ 0·120	+ 0·01	1526
29	84 Leonis τ	+ 3·0859	− 0·0020	− 0·001	+ 19·779	+ 0·066	+ 0·01	1570
30	... ...	+ 3·0923	− 0·0042	...	+ 19·966	+ 0·033	...	.
31	... ...	+ 3·0890	− 0·0038	...	+ 19·987	+ 0·028	...	...
32	... ...	+ 3·0893	− 0·0039	...	+ 19·990	+ 0·027	...	...
33	8 Virginis π	+ 3·0761	− 0·0022	− 0·003	+ 20·048	+ 0·002	+ 0·02	1618
34	Lalande 22762 ..	+ 3·0709	− 0·0015	...	+ 20·053	− 0·013	...	...
35	R. P. L. 92	+ 1·5357	+ 0·0036	+ 0·285	+ 20·019	− 0·022	+ 0·02	1656

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Mean Positions of Stars for 1886, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
36	7 Corvi δ^2	3·1	...	12	23	57·98	105	52	49·6	2	0·44
37	29 Virginis γ^1	3·5	...	12	35	53·03	90	49	23·6	2	0·44
38	43 Virginis δ	3·7	...	12	49	51·65	85	58	57·7	3	0·44
39	47 Virginis ϵ	3·0	...	12	56	30·17	78	25	40·5	1	0·46
40	4 Bootis τ	4·5	...	13	41	50·80	71	58	29·5	3	0·47
41	93 Virginis τ	4·3	...	13	55	50·69	87	54	10·7	1	0·48
42	22 Bootis f	5·4	...	14	21	9·22	70	15	38·3	2	0·47
43	25 Bootis ρ	3·6	...	14	26	54·88	59	7	40·0	1	0·47
44	R. P. L. 110	7·1	...	14	52	17·76	3	34	46·7	4	0·73
45	72 Ophiuchi	3·8	...	18	1	56·68	80	27	7·4	1	0·59
46	23 Ursæ Minoris δ ...	4·3	...	18	9	5·05	3	23	21·6	7	0·14
47	58 Serpentis η	3·4	...	18	15	24·68	92	55	39·3	1	0·67
48	22 Sagittarii λ	3·1	...	18	20	56·07	115	28	58·9	2	0·63
49	13 Aquilæ ϵ	4·1	...	18	54	26·88	75	5	11·7	2	0·66
50	52 Sagittarii h^3	4·6	...	19	29	46·18	105	8	2·1	2	0·68
51	λ Ursæ Minoris	6·5	...	19	37	50·94	1	2	31·0	8	0·26
52	53 Aquilæ α (*Altair*) ...	1·0	..	19	45	13·21	81	25	54·5	5	0·70
53	65 Aquilæ θ	3·4	...	20	5	25·37	91	9	31·4	7	0·70
54	2 Delphini ϵ	4·1	...	20	27	45·91	79	5	0·4	4	0·72
55	R. P. L. 155	7·0	...	23	24	18·93	4	12	38·4	5	0·30

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
36	7 Corvi δ^2	+ 3·1120	+ 0·0118	− 0·014	+ 19·944	− 0·055	+ 0·15	1675
37	29 Virginis γ^1 ...	+ 3·0754	+ 0·0043	− 0·039	+ 19·808	− 0·078	− 0·02	1698
38	43 Virginis δ ...	+ 3·0522	+ 0·0025	− 0·034	+ 19·582	− 0·103	+ 0·05	1723
39	47 Virginis ϵ... ...	+ 3·0056	− 0·0007	− 0·019	+ 19·448	− 0·114	− 0·03	1735
40	4 Bootis τ	+ 2·8854	− 0·0007	− 0·035	+ 18·16	− 0·188	− 0·04	1810
41	93 Virgins τ	+ 3·0487	+ 0·0064	− 0·001	+ 17·546	− 0·222	+ 0·03	1839
42	22 Bootis f	+ 2·7953	+ 0·0009	− 0·006	+ 16·369	− 0·242	− 0·03	1864
43	25 Bootis ρ	+ 2·5944	− 0·0015	− 0·009	+ 16·072	− 0·233	− 0·13	1869
44	R. P. L. 110	− 11·5221	+ 2·9796	...	+ 14·649	+ 1·142	...	...
45	72 Ophiuchi	+ 2·8475	+ 0·0019	− 0·006	− 0·169	− 0·415	− 0·09	2275
46	23 Ursæ Minoris δ ...	− 19·4823	− 0·2624	+ 0·026	− 0·795	+ 2·839	− 0·04	2395
47	58 Serpentis η ...	+ 3·1405	+ 0·0010	− 0·040	− 1·348	− 0·456	+ 0·68	2298
48	22 Sagittarii λ ...	+ 3·7070	− 0·0013	− 0·005	− 1·829	− 0·537	+ 0·20	2310
49	13 Aquilæ ϵ	+ 2·7263	+ 0·0004	− 0·005	− 4·719	− 0·385	+ 0·08	2390
50	52 Sagittarii h^2 ...	+ 3·6521	− 0·0102	+ 0·002	− 7·656	− 0·490	+ 0·01	2478
51	λ Ursæ Minoris ...	− 63·8390	− 28·9195	− 0·050	− 8·304	+ 8·478	+ 0·01	2795
52	53 Aquilæ α	+ 2·8919	− 0·0014	+ 0·035	− 8·886	− 0·374	− 0·38	2524
53	65 Aquilæ θ	+ 3·0955	− 0·0042	− 0·000	− 10·434	− 0·382	− 0·01	2576
54	2 Delphini ϵ	+ 2·8664	− 0·0013	− 0·001	− 12·052	− 0·330	+ 0·02	2642
55	R. P. L. 155	+ 0·2564	− 0·3328	...	− 19·810	+ 0·003	...	...

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SEPARATE RESULTS

OF

OBSERVATIONS

OF THE FIXED STARS

MADE WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1887

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Separate Results of Madras Meridian Circle Observations in 1887.

Number and Date.	Magnitude.	Mean Right Ascension 1887. h. m. s.	No. of Wires.	Mean Polar Distance 1887. ° ′ ″	Observer.
1		21 *Andromedæ a, Alpherat.*			
Nov. 3	...	0 2 32·81	...	61 31 59·3	R
17	...	2 32·89	...	32 1·5	R
21	...	2 32·82	...	32 1·2	R
26	...	2 32·74	...	32 1·8	R
2		8 *Ceti ι*			
Nov. 7	...	0 13 40·12	...	99 27 0·5	R
17	...	13 40·05	...	27 0·5	R
26	...	13 40·16	...	26 59·9	R
3		63 *Piscium δ*			
Nov. 21	...	0 42 49·09	...	83 1 47·1	R
26	...	42 49·14	...	1 47·1	R
4		43 *Arietis σ*			
Jan. 7	...	2 45 15·29	...	75 23 1·8	M
11	...	45 15·24	...	23 1·3	M
5		1 *Tauri o, Var.* 5.			
Jan. 7	...	3 18 43·87	...	81 22 11·3	M
14	...	18 43·98	...	22 8·7	R
18	...	18 43·97	...	22 9·6	M
21	...	18 43·99	...	22 9·6	M
6		18 *Eridani ε*			
Jan. 7	...	3 27 36·38	...	99 50 27·8	M
18	...	27 36·41	...	50 29·3	M
21	...	27 36·32	..	50 29·6	M
7		73 *Tauri* A[1].			
Jan. 14	...	3 58 0·86	...	68 13 39·8	R
8		54 *Tauri γ*			
Jan. 11	...	4 13 21·72	...	74 38 46·5	M
14	...	13 21·75	...	38 45·0	R
18	...	13 21·75	...	38 47·0	M
21	...	13 21·82	...	38 45·9	M
25	...	13 21·62	...	38 44·9	R
28	...	13 21·72	...	38 46·2	M
9		57 *Eridani μ*			
Jan. 11	...	4 39 51·12	...	93 27 46·3	M
25	...	39 51·28	...	27 44·9	R
28	...	39 51·07	...	27 43·7	M
10		*R. P. L.* 37.			
Jan. 7	...	4 51 49·55	3	4 11 31·8	M
28	...	51 50·81	3	11 27·5	M
11		19 *Orionis β, Rigel.*			
Feb. 18	...	5 9 6·44	...	98 19 57·3	R
12		*R. P. L.* 40.			
Feb. 18	...	5 25 50·77	3	4 51 46·7	R
13		34 *Orionis δ, Var.* 1.			
Feb. 22	...	5 26 14·08	...	90 22 59·[1]	M
14		11 *Leporis a*			
Jan. 25	...	5 27 44·73	...	107 54 12·7	R
28	...	27 44·85	...	54 12·7	M
15		46 *Orionis ε*			
Feb. 22	...	5 30 28·74	...	91 16 27·8	M
16		53 *Orionis κ*			
Feb. 18	...	5 42 23·80	...	99 42 36·7	R
22	...	42 23·71	...	42 35·8	M
25	...	42 23·78	...	42 35·2	R
17		31 *Geminorum ξ*			
Feb. 18	...	6 38 56·85	...	76 59 0·7	R
25	...	38 56·96	..	58 58·4	R
Mar. 4	...	38 56·80	...	59 1·7	M
18		9 *Canis Majoris a, Sirius.*			
Mar. 1	...	6 40 10·02	...	106 33 41·5	R

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Separate Results of Madras Meridian Circle Observations in 1887.

Number and Date.	Magnitude.	Mean Right Ascension 1887. h. m. s.	No. of Wires.	Mean Polar Distance 1887. ° ′ ″	Observer.
19		51 *Cephei* (*Hev.*).			
Feb. 25	...	6 47 16·71	3	2 46 42·6	R
Mar. 4	...	47 16·02	3	46 42·7	M
Apl. 1	...	47 16·81	3	46 47·4	M
20		14 *Canis Majoris* θ			
Mar. 1	...	6 48 56·42	...	101 53 51·1	R
21		*W. B. E.* VII. 467.			
Feb. 18	9·5	7 17 30·07	...	81 12 16·5	R
22	9·5	17 30·20	...	12 18·4	M
25	9·5	17 30·15	...	12 16·5	R
Mar. 1	9·5	17 30·15	...	12 17·4	R
4	9·5	17 30·13	...	12 17·1	M
22		3 *Canis Minoris* β			
Feb. 25	...	7 21 1·27	...	81 28 59·1	R
Mar. 1	...	21 1·28	...	28 59·8	R
4	...	21 1·46	...	29 1·4	M
Apl. 1	...	21 1·47	...	29 1·7	M
23		ξ *Argûs.*			
Mar. 4	...	7 44 32·47	...	114 34 35·8	M
24		17 *Cancri* β			
Apl. 8	...	8 10 23·15	...	81 27 58·3	M
25		43 *Cancri* γ			
Apl. 1	...	8 36 44·81	...	68 7 32·9	M
8	...	36 44·75	...	7 33·1	M
26		65 *Cancri* a			
Apl. 8	...	8 52 18·38	...	77 42 18·2	M
27		14 *Leonis* o			
Apl. 26	...	9 35 7·10	...	79 36 40·4	R
28		24 *Leonis* μ			
Apl. 26	...	9 46 20·10	...	63 27 37·7	R
29	...	46 20·16	...	27 39·9	M
29		*R. P. L.* 72.			
Apl. 26	...	10 18 6·17	3	5 10 27·5	R
		R. P. L. 72—*s.p.*			
Oct. 10	...	10 13 5·59	7	5 10 32·1	R
30		42 *Hydræ* μ			
Apl. 29	...	10 20 37·44	...	106 15 36·3	M
May 3	...	20 37·49	...	15 35·0	R
6	...	20 37·51	...	15 32·6	R
31		58 *Leonis* d.			
Apl. 26	...	10 54 43·47	...	85 46 32·5	R
29	...	54 43·49	...	46 33·6	M
May 3	...	54 43·48	...	46 32·8	R
6	...	54 43·44	...	46 31·6	R
10	...	54 43·51	...	46 32·8	R
16	...	54 43·49	...	46 32·5	R
32		84 *Leonis* τ			
May 3	...	11 22 7·55	...	86 31 17·4	R
6	...	22 7·56	...	31 15·5	R
33		8 *Virginis* π			
May 16	...	11 55 4·98	...	82 45 19·0	R
27	...	55 4·93	...	45 18·1	R
31	...	55 4·93	...	45 19·0	R
June 3	...	55 5·01	...	45 19·2	M
34		*R. P. L.* 92.			
May 16	...	12 13 30·97	3	2 56 9·8	R
31	...	13 31·35	3	56 12·2	R

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Separate Results of Madras Meridian Circle Observations in 1887.

Number and Date.	Magnitude.	Mean Right Ascension 1887. h. m. s.	No. of Wires.	Mean Polar Distance 1887. ° ′ ″.	Observer.
		R. P. L. 92—*s.p.*			
Nov. 3	...	12 13 31·93	3	2 56 13·0	R
21	...	13 31·39	3	56 12·9	R
35		7 *Corvi* δ^2			
May 10	...	12 24 1·11	...	105 53 7·5	R
16	...	24 1·12	...	53 11·9	R
20	...	24 1·20	...	53 7·4	R
24	...	24 1·12	...	53 8·9	R
June 3	...	24 1·16	...	53 8·6	M
7	...	24 1·20	...	53 9·0	M
36		29 *Virginis* γ^1			
May 24	...	12 35 55·99	..	90 49 42·2	R
27	...	35 55·99	...	49 41·8	R
June 3	...	35 55·99	...	49 42·2	M
7	...	35 56·04	...	49 43·4	M
10	...	35 56·08	...	49 41·7	M
14	...	35 56·06	...	49 43·8	M
37		43 *Virginis* δ			
May 10	...	12 49 54·71	...	85 59 17·1	R
20	...	49 54·73	...	59 15·3	R
24	...	49 54·68	...	59 16·6	R
31	...	49 54·74	...	59 15·4	R
June 7	...	49 54·62	...	59 15·9	M
10	...	49 54·71	...	59 14·6	M
14	...	49 54·68	...	59 17·3	M
38		47 *Virginis* ϵ			
May 20	...	12 56 33·08	...	78 25 57·3	R
27	...	56 33·12	...	25 58·0	R
31	..	56 33·10	...	25 58·5	R
June 10	...	56 33·01	...	25 57·2	M
14	...	56 33·04	...	25 59·7	M
39		4 *Bootis* τ			
June 28	...	13 41 53·65	..	71 58 45·2	M
July 1	...	41 53·56	...	58 48·2	M
40		93 *Virginis* τ			
June 28	...	13 55 53·69	...	87 54 28·1	M
July 1	...	55 53·82	...	54 29·9	M
41		22 *Bootis f.*			
June 28	...	14 21 12·05	...	70 15 54·2	M
July 1	...	21 12·01	...	15 54·8	M
42		*R. P. L.* 110.			
June 14	...	14 52 5·29	3	3 34 59·9	M
28	...	52 3·65	3	34 59·3	M
		R. P. L. 110.—*s.p.*			
Jan. 7	...	14 52 6·32	3	3 34 59·3	M
43		37 *Serpentis* ϵ			
July 22	...	15 45 10·99	...	85 10 52·2	M
44		20 *Herculis* γ			
July 22	...	16 16 55·96	...	70 34 52·8	M
45		13 *Ophiuchi* ζ			
July 22	...	16 30 56·13	...	100 20 14·4	M
46		35 *Ophiuchi* η			
July 12	...	17 3 53·91	...	105 35 1·7	M
Aug. 27	...	3 53·90	...	35 1·8	M
47		42 *Ophiuchi* θ			
July 12	...	17 15 4·12	...	114 53 7·7	M
Aug. 27	...	15 4·10	..	53 9·9	M
48		49 *Ophiuchi* σ			
July 12	...	17 20 54·40	...	85 45 36·9	M
Aug. 27	...	20 54·41	...	45 37·6	M

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Separate Results of Madras Meridian Circle Observations in 1887.

Number and Date.	Magnitude.	Mean Right Ascension 1887. h. m. s.	No. of Wires.	Mean Polar Distance 1887. ° ′ ″	Observer.
49		23 *Ursæ Minoris* δ			
July 29	...	18 8 46·60	3	3 23 18·9	M
		23 *Ursæ Minoris* δ—*s.p.*			
Jan. 28	...	18 8 46·38	3	3 23 17·9	M
Feb. 18	...	8 44·80	2	23 19·3	R
25	...	8 46·07	3	23 20·8	R
Mar. 4	...	8 45·39	3	23 19·0	M
50		λ *Ursæ Minoris*—*s.p.*			
Apl. 1	...	19 36 47·33	7	1 2 23·7	M
51		53 *Aquilæ a, Altair.*			
Oct. 1	...	19 45 16·19	...	31 25 41·9	R
5	...	45 16·19	...	25 42·5	R
52		65 *Aquilæ* θ			
Oct. 1	...	20 5 28·37	...	91 9 18·7	R
5	...	5 28·45	...	9 18·5	R
10	...	5 28·42	...	9 19·1	R
53		2 *Delphini* ϵ			
Oct. 5	...	20 27 48·80	...	79 4 45·6	R
10	...	27 48·87	...	4 46·8	R
54		2 *Aquarii* ϵ			
Oct. 10	...	20 41 33·46	...	99 54 29·9	R
55		61 *Cygni.*—1*st.*			
Oct. 1	...	21 1 49·83	...	51 48 16·3	R
56		48 *Aquarii* γ			
Nov. 3	...	22 15 49·13	...	91 57 21·6	R
7	...	15 49·16	...	57 21·6	R
57		73 *Aquarii* λ			
Nov. 3	...	22 46 43·03	...	98 10 48·3	R
7	...	46 42·99	...	10 48·5	R
17	...	46 43·00	...	10 48·2	R
21	...	46 43·03	...	10 49·7	R
58		*R. P. L.* 155.			
Nov. 3	...	23 24 20·34	4	4 12 11·0	R
21	...	24 19·80	3	12 15·4	R
		R. P. L. 155—*s.p.*			
Apl. 26	...	23 24 19·71	3	4 12 19·4	R
May 16	...	24 19·22	3	12 18·9	R

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MEAN POSITIONS OF STARS

OBSERVED WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1887

REDUCED TO JANUARY 1 OF THAT YEAR

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Mean Positions of Stars for 1887, *January* 1*st*.

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
1	21 Androm. α (*Alpheratz*) ..	2·1	...	0	2	32·82	61	32	1·0	4	0·88
2	8 Ceti ι	3·6	...	0	13	40·11	99	27	0·3	3	0·88
3	63 Piscium δ	4·6	...	0	42	49·12	88	1	47·1	2	0·89
4	43 Arietis σ	5·5	...	2	45	15·27	75	23	1·6	2	0·02
5	1 Tauri o, Var. 5	Var.	...	3	18	43·95	81	22	9·8	4	0·04
6	18 Eridani ε	3·7	...	3	27	36·37	99	50	28·9	3	0·04
7	37 Tauri A[1]	4·4	...	3	58	0·86	68	13	39·6	1	0·04
8	54 Tauri γ	3·9	...	4	13	21·73	74	38	45·9	6	0·05
9	57 Eridani μ	4·3	...	4	39	51·16	93	27	45·0	3	0·06
10	R. P. L. 37	6·8	...	4	51	50·18	4	11	29·7	2	0·04
11	19 Orionis β (*Rigel*) ...	0·3	...	5	9	6·44	98	19	57·3	1	0·13
12	R. P. L. 40	6·2	...	5	25	50·77	4	51	46·7	1	0·13
13	34 Orionis δ, Var. 1 ...	Var.	...	5	26	14·08	90	22	59·1	1	0·14
14	11 Leporis α	2·7	...	5	27	44·79	107	54	12·7	2	0·07
15	46 Orionis ε	1·8	...	5	30	26·74	91	16	27·8	1	0·14
16	53 Orionis κ	2·2	...	5	42	23·76	99	42	35·9	3	0·14
17	31 Geminorum ξ	3·4	...	6	38	56·87	76	59	0·3	3	0·15
18	9 Canis Maj. α (*Sirius*) ...	− 1·4	...	6	49	10·02	106	38	41·5	1	0·16
19	51 Cephei (*Hev.*) ...	5·3	...	6	47	16·51	2	46	44·2	3	0·19
20	14 Canis Majoris θ ...	4·2	...	6	48	56·42	101	53	51·1	1	0·16
21	W. B. E. VII. 467 ...	9·5	5	7	17	30·14	81	12	17·2	5	0·15
22	3 Canis Minoris β ...	3·1	...	7	21	1·37	81	29	0·5	4	0·18
23	ξ Argûs	3·4	...	7	44	32·47	114	34	35·8	1	0·17
24	17 Canori β	3·8	...	8	10	23·15	80	27	58·3	1	0·27
25	43 Canori γ	4·8	...	8	36	44·78	68	7	33·0	2	0·26
26	65 Canori α	4·3	...	8	52	18·38	77	42	18·2	1	0·27
27	14 Leonis o	3·8	...	9	35	7·10	79	36	40·4	1	0·32
28	24 Leonis μ	4·1	...	9	46	20·13	63	27	38·8	2	0·32
29	R. P. L. 72	5·9	...	10	13	5·83	5	10	29·8	2	0·54
30	42 Hydræ μ	4·1	...	10	20	37·48	106	15	34·6	3	0·33
31	58 Leonis d	5·0	...	10	54	43·48	85	46	32·6	6	0·34
32	84 Leonis τ	5·1	...	11	22	7·56	86	31	16·5	2	0·34
33	8 Virginis π	4·4	...	11	55	4·96	82	45	18·8	4	0·40
34	R. P. L. 92	6·7	...	12	13	31·41	2	56	12·0	4	0·63
35	7 Corvi δ[2]	3·1	...	12	24	1·15	105	53	8·9	6	0·39

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
1	21 Andromedæ α ...	+ 3·0805	+ 0·0182	+ 0·010	− 20·053	+ 0·013	+ 0·16	3215
2	8 Ceti ι	+ 3·0592	− 0·0023	− 0·003	− 20·018	+ 0·034	+ 0·03	14
3	63 Piscium δ... ...	+ 3·1027	+ 0·0079	+ 0·004	− 19·705	+ 0·091	+ 0·04	85
4	43 Arietis σ	+ 3·3026	+ 0·0150	− 0·000	− 15·062	+ 0·323	+ 0·04	400
5	1 Tauri o	+ 3·2272	+ 0·0115	− 0·005	− 12·974	+ 0·364	+ 0·07	477
6	18 Eridani e	+ 2·8900	+ 0·0055	− 0·068	− 12·373	+ 0·336	− 0·01	493
7	37 Tauri A¹	+ 3·5325	+ 0·0153	+ 0·005	− 10·178	+ 0·447	+ 0·06	554
8	54 Tauri γ	+ 3·4005	+ 0·0115	+ 0·007	− 8·998	+ 0·446	+ 0·03	583
9	57 Eridani μ... ...	+ 2·9965	+ 0·0055	− 0·000	− 6·871	+ 0·413	+ 0·00	657
10	R. P. L. 37	+ 20·5128	+ 1·4734	...	− 5·877	+ 2·863	...	...
11	19 Orionis β... ...	+ 2·8814	+ 0·0040	− 0·001	− 4·417	+ 0·412	− 0·01	736
12	R. P. L. 40	+ 18·6117	+ 0·5766	...	− 2·977	+ 2·686	...	...
13	34 Orionis δ	+ 3·0636	+ 0·0038	− 0·001	− 2·944	+ 0·443	+ 0·01	787
14	11 Leporis α	+ 2·6447	+ 0·0029	− 0·001	− 2·813	+ 0·383	− 0·01	796
15	46 Orionis ε	+ 3·0429	+ 0·0035	− 0·002	− 2·576	+ 0·441	− 0·01	809
16	53 Orionis κ	+ 2·8442	+ 0·0027	− 0·002	− 1·539	+ 0·414	− 0·00	844
17	31 Geminorum ξ ...	+ 3·3771	− 0·0017	− 0·009	+ 3·392	+ 0·485	+ 0·20	989
18	9 Canis Majoris α ...	+ 2·6310	+ 0·0010	− 0·037	+ 3·497	+ 0·384	+ 1·20	994
19	51 Cephei (*Hev.*) ...	+ 30·0318	− 2·3507	− 0·040	+ 4·107	+ 4·286	+ 0·05	Gr.
20	14 Canis Majoris θ ...	+ 2·7971	+ 0·0004	− 0·011	+ 4·251	+ 0·397	+ 0·00	1011
21	W. B. E. VII. 467 ...	+ 3·2675	− 0·0038	...	+ 6·653	+ 0·447	...	...
22	8 Canis Minoris β ...	+ 3·2603	− 0·0041	− 0·004	+ 6·942	+ 0·444	+ 0·03	1079
23	ξ Argûs	+ 2·5235	+ 0·0008	− 0·001	+ 8·833	+ 0·327	− 0·02	1132
24	17 Cancri β	+ 3·2615	− 0·0072	− 0·004	+ 10·804	+ 0·397	+ 0·04	1180
25	43 Cancri γ	+ 3·4864	− 0·0143	− 0·009	+ 12·671	+ 0·390	+ 0·03	1230
26	65 Cancri α	+ 3·2352	− 0·0098	+ 0·001	+ 13·695	+ 0·345	+ 0·02	1269
27	14 Leonis o	+ 3·2175	− 0·0093	− 0·010	+ 16·178	+ 0·272	+ 0·02	1360
28	24 Leonis μ	+ 3·4401	− 0·0198	− 0·019	+ 16·738	+ 0·271	+ 0·05	1384
29	R. P. L. 72	+ 9·7109	− 1·5738	− 0·096	+ 17·911	+ 0·629	− 0·04	1399
30	42 Hydræ μ	+ 2·9086	+ 0·0040	− 0·010	+ 18·199	+ 0·171	+ 0·06	1451
31	58 Leonis d	+ 3·1001	− 0·0039	− 0·002	+ 19·245	+ 0·120	+ 0·01	1526
32	84 Leonis τ	+ 3·0859	− 0·0020	− 0·001	+ 19·780	+ 0·066	+ 0·01	1570
33	8 Virginis π	+ 3·0760	− 0·0022	− 0·003	+ 20·048	+ 0·002	+ 0·02	1618
34	R. P. L. 92	+ 1·5355	+ 0·0036	+ 0·285	+ 20·019	− 0·022	+ 0·02	1656
35	7 Corvi δ²	+ 3·1121	+ 0·0118	− 0·014	+ 19·943	− 0·055	+ 0·15	1675

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Mean Positions of Stars for 1887, *January* 1*st.*

Number.	Star.	Magnitude.	Estimations.	Mean Right Ascension.			Mean Polar Distance.			Observations.	Fraction of Year.
				h.	*m.*	*s.*	°	′	″		
36	29 Virginis γ^1	3·5	...	12	35	56·03	90	49	42·5	6	0·42
37	43 Virginis δ	3·7	...	12	49	54·70	85	59	16·0	7	0·41
38	47 Virginis ϵ	3·0	...	12	56	33·07	78	25	58·1	5	0·42
39	4 Bootis τ	4·5	...	13	41	53·61	71	58	46·7	2	0·49
40	93 Virginis τ	4·3	...	13	55	59·76	87	54	29·0	2	0·49
41	22 Bootis f	5·4	...	14	21	12·03	70	15	54·5	2	0·49
42	R. P. L. 110	7·1	...	14	53	5·09	3	34	59·5	3	0·32
43	37 Serpentis ϵ	3·7	...	15	45	10·99	85	10	52·2	1	0·55
44	20 Herculis γ	3·8	...	16	16	55·96	70	34	52·8	1	0·55
45	13 Ophiuchi ζ	2·8	...	16	30	56·13	100	20	14·4	1	0·55
46	35 Ophiuchi η	2·6	...	17	3	53·91	105	35	1·8	2	0·59
47	42 Ophiuchi θ	3·4	...	17	15	4·11	114	53	8·8	2	0·59
48	49 Ophiuchi σ	4·4	...	17	20	54·41	85	45	37·3	2	0·59
49	23 Ursæ Minoris δ ...	4·3	...	18	8	45·85	3	23	19·2	5	0·22
50	λ Ursæ Minoris	6·5	...	19	36	47·33	1	2	23·7	1	0·25
51	53 Aquilæ α (*Altair*) ...	1·0	...	19	45	16·19	81	25	42·2	2	0·75
52	65 Aquilæ θ	3·4	...	20	5	28·41	91	9	18·8	3	0·76
53	2 Delphini ϵ	4·1	...	20	27	48·84	79	4	46·2	2	0·77
54	2 Aquarii ϵ	3·8	...	20	41	33·46	99	54	29·9	1	0·77
55	61 Cygni—1st	5·5	...	21	1	49·83	51	48	16·3	1	0·75
56	48 Aquarii γ	4·1	...	22	15	49·15	91	57	21·6	2	0·84
57	73 Aquarii λ	3·8	...	22	46	48·01	98	10	48·7	4	0·86
58	R. P. L. 155	7·0	...	23	24	19·77	4	12	16·2	4	0·60

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Observed with the Madras Meridian Circle in that Year.

Number.	Star.	In Right Ascension.			In Polar Distance.			Authority.
		Annual Precession.	Secular Variation.	Proper Motion.	Annual Precession.	Secular Variation.	Proper Motion.	
		s	s	s	"	"	"	
36	29 Virginis γ^1 ...	+ 3·0754	+ 0·0043	− 0·039	+ 19·808	− 0·078	− 0·02	1698
37	43 Virginis δ ...	+ 3·0522	+ 0·0025	− 0·034	+ 19·580	− 0·103	+ 0·05	1723
38	47 Virginis ϵ ...	+ 3·0056	− 0·0007	− 0·019	+ 19·447	− 0·114	− 0·03	1735
39	4 Bootis τ	+ 2·8854	− 0·0007	− 0·035	+ 18·104	− 0·188	− 0·04	1810
40	93 Virginis τ ...	+ 3·0488	+ 0·0064	− 0·001	+ 17·543	− 0·222	+ 0·03	1829
41	22 Bootis f	+ 2·7953	+ 0·0009	− 0·006	+ 16·366	− 0·242	− 0·03	1864
42	R. P. L. 110	− 11·4956	+ 2·9735	...	+ 14·661	+ 1·138	...	...
43	37 Serpentis ϵ ..	+ 2·9787	+ 0·0066	+ 0·007	+ 11·128	− 0·365	− 0·06	2005
44	20 Herculis γ ...	+ 2·6480	+ 0·0038	− 0·005	+ 8·718	− 0·351	− 0·05	2084
45	13 Ophiuchi ζ ...	+ 3·2980	+ 0·0087	− 0·001	+ 7·599	− 0·447	− 0·04	2109
46	35 Ophiuchi η ...	+ 3·4342	+ 0·0073	+ 0·000	+ 4·861	− 0·487	− 0·10	2171
47	42 Ophiuchi θ ...	+ 3·6807	+ 0·0080	− 0·002	+ 3·907	− 0·528	+ 0·04	2189
48	49 Ophiuchi σ ...	+ 2·9747	+ 0·0087	− 0·002	+ 3·404	− 0·428	− 0·02	2206
49	23 Ursæ Minoris δ ...	− 19·4892	− 0·2530	+ 0·026	− 0·767	+ 2·841	− 0·04	2395
50	λ Ursæ Minoris ...	− 64·1043	− 28·7964	− 0·050	− 8·219	+ 8·533	+ 0·01	2795
51	53 Aquilæ α	+ 2·8918	− 0·0014	+ 0·035	− 8·890	− 0·374	− 0·38	2524
52	65 Aquilæ θ	+ 3·0955	− 0·0042	− 0·000	− 10·438	− 0·332	− 0·01	2576
53	2 Delphini ϵ	+ 2·8663	− 0·0013	− 0·001	− 12·056	− 0·330	+ 0·02	2642
54	2 Aquarii ϵ	+ 3·2503	− 0·0084	− 0·000	− 12·994	− 0·356	+ 0·03	2681
55	61 Cygni—1st ...	+ 2·3347	+ 0·0044	+ 0·344	− 14·288	− 0·233	− 3·23	2744
56	48 Aquarii γ... ...	+ 3·0925	− 0·0042	+ 0·007	− 18·017	− 0·191	− 0·02	2943
57	73 Aquarii λ... ...	+ 3·1328	− 0·0063	− 0·002	− 19·036	− 0·137	− 0·04	3019
58	R. P. L. 155... ...	+ 0·2534	− 0·3341	...	− 19·811	+ 0·003	...	...

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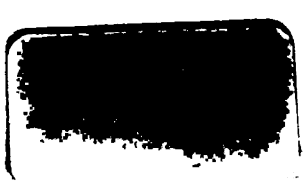

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